

TWENTY-THIRD
ANNUAL REPORT

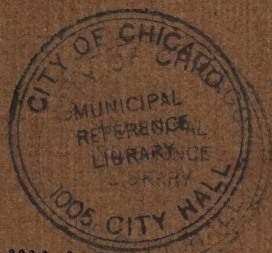
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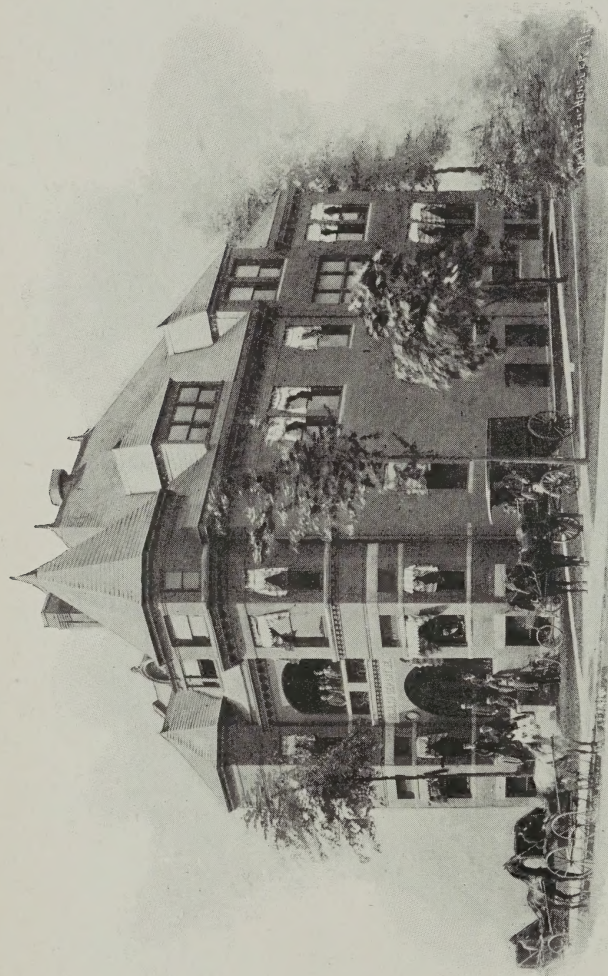
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CITY of DETROIT
FOR THE FISCAL YEAR ENDING
JUNE 30th, 1904



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Twenty-Third Annual Report

OF THE

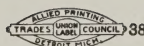
BOARD OF HEALTH

OF THE

CITY OF DETROIT

FOR THE FISCAL YEAR ENDING JUNE 30

1904



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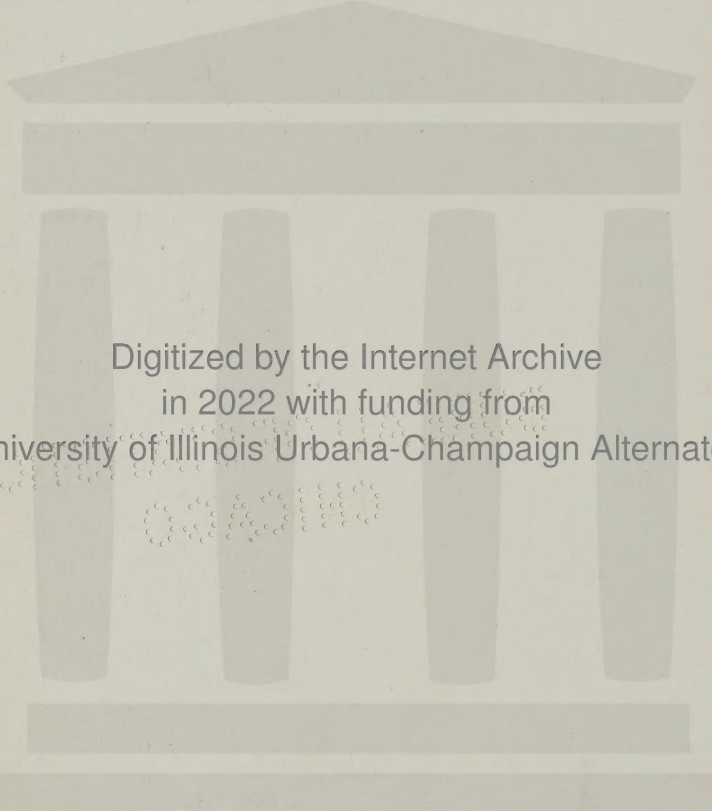
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REPORT OF THE HEALTH OFFICER.

DETROIT, MICH., June 30th, 1904.

To the Honorable the Board of Health:

GENTLEMEN :—

In accordance with the established rule of your honorable body, I herewith submit my report as Health Officer for the fiscal year ending June 30th, 1904 :

PERSONAL INVESTIGATION OF CASES.

The custom established by myself of investigating personally, as nearly as possible, all reports of "suspicious cases," received at this office, has been continued. During the year I have investigated three hundred and six (306) such cases. The persons examined were found to be suffering from various diseases as follows : Smallpox, 99; chickenpox, 55; vaccinia, 4; measles, 30; German measles, 1; scarlet fever, 33; diphtheria, 12; scabies, 32; other diseases, 40. Under the head of "other diseases" I have put such ailments as urticaria, impetigo, typhoid fever, syphilis and several others.

VACCINATION.

The general vaccination of the entire city which was begun June 16th of last year was completed early this year. On August 1st, all of the one hundred and eleven physicians engaged in the work had handed in their books and records. The total number of vaccinations performed by these public vaccinators was 19,491. The number was smaller than we had anticipated, but when you consider that our regular staff had been doing a large number of vaccinations during the year, it is quite a large number after all. During the fiscal year just preceding the general vaccination, the regular employes of the Board of Health vaccinated approximately 40,000 persons, and during the

house to house vaccination in the fall of 1902 our physicians vaccinated about 20,000 persons at their homes and in factories, making a total of 80,000 that were vaccinated through the agency of your Honorable Board. Beside these vaccinations, which were performed directly by your employes, there were a large number of persons who heeded the constant warnings of your board and its health officer, and they were vaccinated by their family physician. During this year we have vaccinated many school children who had not been previously protected, and taking all these various sources of vaccination into account I believe it is fair to conclude that at least one-half of our entire population has been vaccinated or re-vaccinated during the past two years. The effect of this persistent work along the lines of prevention by vaccination is very noticeable in the number of cases of smallpox that have been in Detroit during the past fiscal year as compared with the year previous.

SMALLPOX.

During the year there have been in Detroit and under the care of the Board of Health ninety-nine cases of smallpox, the year previous we had a total of 1,003 cases. Soon after the house to house vaccination above described, smallpox subsided, and on the third day of August, 1903, we discharged the last case of the large outbreak and then Detroit was entirely free from the disease until September 23rd. On that date, however, our attention was called to a case which had been contracted outside of the city and we were again busy looking after smallpox cases until December 17th, when the last case of this outbreak was discharged. There were, in all, twenty cases in the outbreak and no deaths. On January 17, just one month after the last case had left the hospital, I was called to see a railroad employe, who was ill with smallpox. He had never been vaccinated, and had been exposed to the disease somewhere en route. On the following day another case was reported, and the disease was again with us, and has remained with us, but the cases are not many. To-day, at the end of the fiscal year, there are five cases in the city and since the case reported January 17th, there have been fifty-five cases in this outbreak. During the entire year, then, we have cared for ninety-nine cases of this

disease, twenty-four at the end of the large outbreak, and twenty and fifty-five respectively during the two smaller outbreaks that have occurred since. Of these ninety-nine cases, eighty-eight had never been successfully vaccinated, nine had been vaccinated, but the time of last successful vaccination varied from ten to twenty-five years, and only in the case of two was there a claim made of recent successful vaccination. Both of these cases showed fair scars, and they claimed to have been vaccinated three and four years ago respectively. They were both very mild cases. There were two deaths during the year, the one being a new-born babe which was badly infected at birth (the mother having had an unrecognized case of the disease) and died on the seventh day after birth. The other fatal case was a boy fourteen years of age who had never been vaccinated. Although the majority of the cases were mild, there were a number of severe cases of confluent variola. At present there is one very severe case at the hospital. He was an employe of the Barnum & Bailey Circus Company, and contracted the disease en route somewhere in Indiana. Thirty-four of the cases were directly imported, that is, they came to Detroit after having either contracted the disease or after having been exposed to it outside of our limits. Several more were traceable to these imported cases, having been exposed to them before the cases had come to our knowledge, and it is therefore fair to conclude that a majority of our cases during the year were "imported." A small outbreak during the year in the western portion of the city was due to the fact that several cases had been diagnosed as chicken-pox, and had not been reported to us for investigation. When we did discover them the exposures had been of such long standing that a number of cases followed. We conducted a house-to-house vaccination in the infected district and the disease was soon stamped out. The five cases at present in the hospital are all "imported" cases, and we have therefore a right to expect that unless we are favored with more infected visitors, Detroit will soon again be free from smallpox.

SMALLPOX HOSPITAL.

During the year the hospital has been entirely renovated. An electric light plant has been installed, the entire building has been

newly decorated, and four new bath rooms have been added. Besides these improvements, the heating system has been put in satisfactory condition. One of the large wards has been remodeled, and we now have a very complete arrangement for the final cleansing bath and for the final disinfection of the patients and their clothing before they leave the hospital. The rooms for this purpose are so arranged that the patients after their bath pass directly into the dressing room, which connects with the disinfecting room, and thence they leave the hospital directly, without again returning to its infected wards as has been necessary in the past. The expense of the repairs was something over \$4,000. But even this expense is economical when we consider that now we have a place to which we can conscientiously take sick persons. The cost to the city of caring for a case at its home is about three times as great as at the hospital, and therefore the expenditure of this money even from a standpoint of economy was a prudent step to say nothing of its absolute necessity as a benefit to the persons who come down with the disease.

SCARLET FEVER.

The number of cases of scarlet fever was considerably smaller than for the year ending June 30th, 1903. The number for this year as it appears in the registrar's report is 575 as compared with 598 for the year previous, but the reduction is greater than the figures would indicate, in as much as formerly the figures indicated the different houses in which cases were reported, counting each house as one case, whereas beginning this year we have counted each additional case in a given family, making 575 the actual number of cases of scarlet fever that were recorded during the year.

The Medical Inspection of Schools has been a great aid to the department in locating cases of scarlet fever that would otherwise have gone unnoticed. On one occasion Dr. F. N. Blanchard, Medical Inspector in the Gillies School, detected five cases of scarlet fever in early stages in children attending school on one day. All of the cases were promptly sent home, and the diagnosis was verified in each case by the family's physician within twelve hours from the time the children had reached home. The school building was promptly and thoroughly

disinfected and as no cases followed it is fair to conclude that the procedure was the means of preventing a number of cases of scarlet fever and possibly some deaths. On another occasion Dr. A. H. Johnson discovered a child in the Kindergarten of the Russell School in the desquamating stage of scarlet fever. The child was promptly sent home, and the school room disinfected.

The practice of keeping a systematic record of all milk dealers that supply quarantined houses has been continued, and during the year we were able to trace a small outbreak of scarlet fever to the milk supply. From December 5th to December 16th, inclusive, there were ten cases of scarlet fever reported along the milk route of J. Workman on the west side of the city. Dr. Price and myself tried to locate the exact source of the infection but were unable to do so. We found no trace of the disease in the family of the milk dealer, nor could we find any cause for the infection at the farm in Inkster, Mich., whence Mr. Workman gets his milk. On December 18th we thoroughly disinfected the premises of the milk dealer, and also the clothing of the peddler. After the disinfection there were three cases reported along his route, on the 19th, 22nd, and 26th respectively. In as much as all of these additional cases had probably been infected before December 18th, and in as much as no further cases developed after December 26, it would seem as though the disinfection had stopped the spread of scarlet fever from that source.

DIPHTHERIA.

Diphtheria has been unusually prevalent in Detroit during the year. There were 1,433 cases reported, and of these, 192 or about 13½ per cent. died. This mortality is not very large when we consider that the great majority of these cases were found among the poor, in unsanitary ill-ventilated houses, and that a large percentage of them had to be treated at home, and could not be removed to a hospital where their chances for recovery would have been vastly greater. Hospital facilities for contagious diseases are, as your Honorable Board well knows, very limited in Detroit. In all doubtful cases, or whenever the attending physician has requested it, the Bacteriologist

of the Board of Health has made examinations to determine the possible presence of Klebs-Loeffler Bacilli. Whenever a case was found to be diphtheria, the house was quarantined for a minimum of eight days, even when the case was reported as recovered before that time had elapsed.

In order to control the situation and to prevent the spread of the disease as much as possible, two special quarantine guards were appointed, one for each side of the city, and it was their duty to see to it that persons in quarantined houses obeyed the rules of the Board of Health. Besides this precaution antitoxin was furnished by your Honorable Board for curative purposes to all persons who were unable to pay for this remedy, and more than that, antitoxin was given to physicians, free of charge, for immunization regardless of whether the family to be protected was poor or otherwise. The Board of Health took the position with the Health Officer that when we demand of people that they use antitoxin for the purpose of preventing the spread of diphtheria, it is our duty to furnish the antitoxin. These precautionary methods: together with a strict watch of the school children and buildings, aided us in bringing the number of cases down so that now, at the end of the year, there are only twelve cases of diphtheria in Detroit.

TUBERCULOSIS.

Nothing new has been done during the year in the way of restricting this disease, nor will it be possible to add any new precautions until we get a satisfactory law putting consumption in the list of notifiable diseases. The first thing necessary for us in order to restrict a given disease is to have a record of the cases. We must have a knowledge of the existence and location of the cases, before we can do very much with them. In order to control the disease as much as possible, however, under existing circumstances, we have closely observed the following precautionary methods: Firstly, the Bacteriologist of the Board of Health is examining specimens of sputum for the possible presence of tubercle bacilli whenever the attending physician requests such examination, free of charge; secondly, your

Honorable Board is getting good results from the so-called "spitting signs" posted in street cars, public buildings, and in various other public places about the city, calling attention to the fact that spitting in these places is detrimental to the public health, and that it is forbidden; thirdly, whenever a death from tuberculosis is reported, we thoroughly disinfect the house from which the body is removed; and fourthly, whenever a case of consumption is reported to this office we furnish the householders with literature instructing them how to protect themselves and their neighbors against the infection.

MEASLES.

Physicians are learning to report their cases of measles, and when they do we see to it that the case is isolated in its home, and the other children of the family are kept out of school.

There have been a number of cases during the year found at boarding houses and similar places, but they could not be removed because there is no hospital in Detroit at the present time in which cases of measles are accepted. This fact was advanced as one of the arguments in favor of the establishment of an hospital for communicable diseases in Detroit, but it was laughed at by the ardent opponents of the plan. The fact that "a few measley cases of measles" cannot be cared for was not considered worthy of consideration. The fact is, however, that measles is a disease which at the present time is much more prevalent and much more fatal than smallpox and it is the duty of your Honorable Board to see that it is restricted. The best way to accomplish this end is by having a suitable hospital for at least some of these cases. When a person contracts smallpox it is his own fault entirely because he has not protected himself by vaccination. In the case of measles it is very often the fault of the municipality because it has not properly protected its citizens. An hospital for cases of scarlet fever, diphtheria, measles, and some other communicable diseases is an absolute necessity in Detroit and it is to be hoped that an appropriation for that purpose will soon be granted.

TYPHOID FEVER.

During this year your Honorable Board has added typhoid fever to the list of notifiable diseases. On April 30th an order to this effect was published, and subsequently each registered physician in Detroit was supplied with a copy of the order. Since that time physicians are reporting cases of typhoid, and I believe we will soon be getting a correct record of all of the cases in Detroit. It is not the intention to placard and quarantine houses in which there is a case of this disease, but rather to send to such householders literature instructing them how, by means of proper disinfection of the bedding, the food utensils, the discharges, and in fact, of everything that leaves the sick chamber, to prevent the spread of this disease. It is the further purpose of your Honorable Board to cause the houses in which typhoid fever patients have been confined, to be thoroughly disinfected by your employes after the disease in each case has run its course, not only in cases of death, as is now done, but also after recovery from the disease. It is my belief that our cases of typhoid fever are for the most part brought into the city after exposure elsewhere, and that additional cases are spread by personal contact, or possibly by means of flies carrying the contagion. I do not believe that there is any typhoid infection spread by the drinking water from Detroit's public water supply. If this opinion is true, we can prevent much of the typhoid in our city by educating the public on the subject of disinfection and protection of the sick chamber against house flies.

In order to facilitate the sending in of reports of such cases on behalf of physicians, we will probably arrange during the coming year to have the Widal test made for the purpose of diagnosis whenever physicians request the same. There will, of course, be no charge for this work.

EXAMINATION OF AIR IN SCHOOL BUILDINGS.

This important work has been industriously continued and the good results are noticeable. In a number of schools in which the air was particularly bad, improvements have been made in accordance with the suggestions of your sanitary engineer, and subsequent examinations of the air have shown that the desired results were obtained. On February 17th, your Honorable Board adopted a resolution requiring all buildings to be used for school purposes to be so ventilated that when in use the rooms will contain air, the amount of carbon dioxide of which shall not exceed nine parts in 10,000 of air. In accordance with these regulations many improvements are being made in the private schools, including business and medical colleges, during this summer's vacation. It is the intention to continue this work and extend it to include the examination of air of other public buildings, such as court rooms, and other places of assembly, and also to street cars. This work is very valuable and will, let us hope, result in a satisfactory method of ventilating street cars during the coming winter.

MEDICAL INSPECTION OF SCHOOLS.

The daily medical inspection of schools has been continued this year, and has been very successful. Although a number of the volunteer physicians grew tired of their charity work, thirty-four doctors continued the daily examinations in as many schools to the end of the school year. The number of exclusions is not so large as it was when this work was first introduced, due to the fact that parents have learned to keep their children at home when they present suspicious symptoms. As will be seen in the registrar's report, the number of pupils examined during the year is 3,452, and the number excluded, 267. Among the exclusions were 14 cases of scarlet fever, two of

diphtheria, and ninety-nine were clinically diagnosed as tonsillitis. I mention these specific diseases to call your attention to the good that is accomplished by this system of examination of school children.

The Board of Health has this year asked for an appropriation for the purpose of paying physicians for this work, and the amount, after being somewhat reduced by the Board of Estimates, has been allowed. The appropriation as it now stands is \$2,500 for the next fiscal year. The plan is to appoint ten physicians at a salary of \$250 per year each, and have each physician take charge of six or seven schools. In this way all of the public schools of the city will be cared for, and the results will be more satisfactory than ever.

MILK SUPPLY.

Considerable work has been done by the milk inspectors during the year to improve Detroit's milk supply. We have adopted the plan of gathering only sealed samples for analysis, so that when we find one that is not in accordance with the law we may proceed against the offender at once. During the year fourteen different dealers have been complained against in court for selling milk which was found to be below the legal chemical standard, and of these cases twelve have been tried, and two are still pending. In all but one of these twelve cases the dealer was convicted, and in only two cases sentence was suspended. The fines imposed in the other cases varied from \$5 to \$25. Suit was brought against one milkman for maintaining a nuisance in the shape of a filthy stable, and he was convicted, but sentence was suspended by the court. There was only one sample of milk found which contained formaldehyde. The dealer was found guilty and fined \$50 for this offence.

For the past two months your Honorable Board has been endeavoring to have a new milk ordinance passed by the Common Council. Considerable opposition has been presented and some delay has resulted therefrom, but I have been assured by the Committee on Ordinances that the new ordinance as submitted by your Honorable Board will be passed with very slight amendment. If this ordinance goes into effect, it will be considerably easier for your milk inspectors to handle the problem of a pure milk supply for Detroit. The principal new feature in the ordinance is that all dealers and dairymen will be obliged to meet certain requirements before they will be given a license to sell or distribute milk, whereas now anyone can obtain a license upon the payment of one dollar.

COLLECTION OF GARBAGE.

In the report of the sanitary engineer may be seen a tabulated list of the number of complaints received during the year for the non-collection of garbage. I have had all of these complaints investigated, and have found the great majority of them to be bona-fide complaints; that is to say, cases of neglect on the part of the collector. When we find a complaint which is really the fault of the householder we cause him to correct the matter. During the year I have sent a full weekly report to the Common Council giving account of each complaint, and I have sent several letters calling the Council's attention to the neglect on the part of the collector (Detroit Sanitary Works). Although the company claim that Detroit has the best garbage collection in the United States, there is, in my opinion, room for improvement, and the Common Council should hold the company more closely to the terms of their contract.

SMOKE INSPECTION.

A detailed account of what has been done in the abatement of the smoke nuisance is contained in the report of the smoke inspector. Many devices for the consumption of smoke have been installed, and many nuisances have been abated. The greatest difficulty has been found in this work in the fact that the engineer or fireman, the man who is in many cases directly responsible for the nuisance, could not be held liable under the ordinance. The new smoke ordinance which has been pending in the Common Council for some months has been finally passed and approved on June 21st, 1904. It is the plan now to give this new ordinance a wide circulation. The smoke inspector is posting cardboard copies in every boiler room in the city, and is calling the attention not only of the engineer, but also of the proprietor, to its provisions. After smoke consumers have been duly warned, we propose to enforce the new ordinance most strictly.

PUBLIC BATHS AND PUBLIC LAVATORIES.

Your Honorable Board has again gone on record as asking for an appropriation for the establishment of at least one public bath in Detroit. The appropriation was passed by the Common Council, but was cut out by the Board of Estimates. Our City is in need of one or more public baths, but a number of public lavatories are even more necessary. I have repeatedly called attention to this fact, and have pointed out on former occasions that the areaways in the basement of our City Hall and of other public buildings have been used as places of public convenience, and in this way nuisances of the worst kind have been created. There is a crying need for several public lavatories and public urinals in our beautiful city, and it is to be hoped that money will soon be available for this immediate necessity.

REGULATIONS GOVERNING HOUSES OF PROSTITUTION.

Detroit is one of the few cities in the Union that has any regulation of this kind. The plan in vogue in this city was adopted two years ago, and has not been materially changed. The inmates of these houses are requested to present a physician's certificate of good health once in two weeks. These certificates are collected by police officers who are detailed for the work. Whenever an inmate is found ill with a communicable disease she is removed to an hospital until she is no longer able to transmit the disease.

This plan is by no means perfect. The examinations should be made more frequently and by public physicians, but even our plan is accomplishing considerable good in the restriction of venerable disease.

HOSPITAL FOR COMMUNICABLE DISEASES.

An hospital for communicable diseases is a necessity in Detroit. Your Honorable Board is well aware of this fact, and you have therefore included in your estimates for two successive years an item for this purpose. Last year the item was cut out by the Common Council without the least consideration being given it, but this year an appropriation of \$100,000, for the purpose of erecting an hospital for communicable diseases, was allowed by the Common Council, but was cut out by the Board of Estimates. But even this latter board admit by their resolution that such an institution is a necessity in our city. The following is a copy of the report of the Committee on Health, which was submitted to the Board of Estimates on April 21st, 1904:

To the Honorable the Board of Estimates :

GENTLEMEN:—

Your Committee No. 9 have given full consideration to the item of \$100,000, asked for by the Board of Health for the erection of a hospital for contagious diseases in the City of Detroit. Your Committee has had before its members of the Health Board and the Health Officer, and also representatives of Harper and Grace Hospitals, and the necessity for such an institution and the present facilities for taking care of cases of contagious disease have been fully considered.

We are convinced and are unanimous in the opinion that the establishment of such a hospital is a necessity in a city of the size of Detroit, and that if such a hospital were established the health authorities would be better able to take care of contagious diseases, and that the City would be benefited not only in the saving of lives but in the prevention of the spread of diseases. It would appear that such a hospital is successfully and economically maintained in the City of Boston, and we believe that one could be made equally successful and free from politics in the City of Detroit. The amount necessary for the establishment of such a hospital, however, it seems to us, should not be placed on the tax roll. It is an expenditure permanent in its character, which would benefit not only present but future generations, and the funds for its erection would naturally and properly be raised by the issuing of bonds covering an extended period of time. Your Committee are unanimously of the opinion therefor: That a hospital for taking care of contagious diseases in the City of Detroit under the general administration of the Board of Health is a necessity that should be provided for in the immediate future, and we recommend therefore that the necessary proceedings and legislation be had to provide for the raising of an amount sufficient to erect and equip such a hospital by the issuing of bonds for such purpose, and that the action of this board be considered a request that the next legislature pass an act enabling the City to issue such bonds. Your committee therefore, recommends that the \$100,000 be cut out of this year's estimates.

Respectfully submitted,

W. W. ROBINSON,
ROBERT M. FROST,
HOMER MCGRAW,
WILLIAM REICH,
W. H. BUTTERFIELD,

This report was accepted, laid on the table and subsequently (April 25th,) the following resolution was unanimously adopted by the Board of Estimates.

"Whereas the report of the Committee on Health of the Board of Estimates, of April 21st, sets forth the necessity of a hospital for communicable diseases in the City of Detroit. Therefore, be it

Resolved, That the next legislature be and it is hereby requested and urged to pass an act enabling the City of Detroit to issue bonds for the purpose of erecting a hospital for communicable diseases, said hospital to be under the general supervision of the Board of Health of said City."

It is to be hoped that the money necessary for this purpose will be raised next year. At present, as you well know, there is no place in the city for the reception of cases of communicable disease except the small contagious disease house at Harper Hospital, where a limited number of cases of diphtheria and scarlet fever may be cared for. The facilities at Harper are so limited that they cannot accommodate more than fifteen cases of these diseases at any one time, and should not accommodate more than five or six according to their cubic feet of air space. Section 9 of the Board of Health law says, "It shall be the duty of said Board of Health to procure suitable places for the reception of persons and things infected with malignant, contagious and infectious diseases and in all cases where sick persons cannot otherwise be provided for, to procure for them medical and other attendance and necessities." The Board of Health has not done its duty under this law during the past year; at least nine hundred cases of diphtheria and four hundred cases of scarlet fever have been allowed to remain in *unsuitable* places. But this is not the fault of your Honorable Board, if money were provided as you have twice demanded, the suitable places would be procured in the shape of a first class hospital. Let us see from our own figures how the mortality rate from these diseases would be affected if we could take practically all of them to an hospital and give them proper medical care and attendance. From July 1st, 1903, to June 30th, 1904, there were reported to your Honorable Board 1,433 cases of diphtheria, of these 1,252 were treated at home and 181 were removed to Harper Hospital. Of the 1,252 that remained at home, 185, or a little over 14%, died, while of the 181 at the Hospital only 7, or a little less than 4%, died. In other words, if we had at

our disposal an hospital no better than the contagious house at Harper, but large enough to accommodate all of our cases, we might have saved during the year 10% of the cases that stayed at home, or 125 lives. Is this worthy of consideration? When we look at the scarlet fever columns we find a similar condition of affairs. There were during the year 575 cases of scarlet fever in Detroit, and of these, 67 were sent to Harper Hospital and 508 remained at their respective homes. Of the former number, 3 cases, or a little less than 5%, died, of the latter, 35 cases or about 7% died. Again we have a difference of 2% in favor of the hospital cases, that is to say, with proper hospital facilities for the care of our cases we might have saved at least ten lives that were sacrificed through scarlet fever. One hundred and thirty-five lives might have been saved from these two diseases alone. If we could take other diseases to the hospital, the result would be the same, comparatively speaking. Besides this saving of human lives we must not forget that a number of cases could have been prevented had we been able to send the first cases of a given outbreak promptly to the hospital. In a great many houses additional cases of scarlet fever have been reported which could surely have been prevented had the first case been promptly removed.

But now comes the argument that an hospital of this kind owned and controlled by the city would cost too much, not only for its erection, but also for its maintenance. This argument is advanced by those opposed to the plan, particularly by persons connected with and interested in Harper Hospital. The answer that might be given is that no expense can be too great when we consider the results. But if we care to answer even this question more definitely we can say that \$100,000 will suffice for the erection of the buildings. As to the maintenance, we must look to the experience of other cities. Boston maintains a very modern, sanitary and even elaborate contagious disease hospital, and, according to last year's report, they do it for about \$9.00 per week per patient. We are now paying Harper Hospital \$8.00 per week (not including antitoxin in the cases of diphtheria) per patient but they have the facilities to care for only a small fraction of our cases. Our experience with smallpox cases during two years has

given us some idea of the cost of maintenance of an hospital. During the large outbreak in the winter of 1902 and 1903, when we had many cases, the cost of maintenance was \$13.00 per case, and, as the average duration of the disease was $2\frac{1}{2}$ weeks, the cost to the city of caring for smallpox patients at the city hospital was \$5.00 per week per patient. This year the expense per patient has been considerably larger owing to the fact that we have had fewer cases. There have been seventy-six cases treated at the hospital at an expense of \$4,107.68, including everything. The average duration of the disease was about eighteen days, so that at this increased rate, the cost of caring for our cases was approximately \$20.00 per week per patient. On several occasions it has been necessary to keep the hospital open for a single case or perhaps two cases. The expense for caring for one or two cases is almost as great as it would be for five or six cases, and that accounts for the high average cost per case during the past year. I do not believe that the maintenance of a general communicable disease hospital need be any greater than that of a smallpox hospital. The only expense which might be increased would be for the number of nurses, but certainly the fuel, the drugs, the provisions, the ambulance service and all other expenses would be practically the same. There seems, then, to be no need of great fear of the immense expense of maintaining a city communicable disease hospital. Let us remember also that a large percentage of the expense of providing quarantined families would be done away with entirely. This year the amount expended for this purpose was \$4,287.84; add to this sum \$3,258.36, the amount of money paid to Harper Hospital during the year, and we have a pretty good nucleus for a maintenance fund for an hospital, and when we consider the amount of good that would be done in the prevention of diseases and the saving of human lives, the difference in expense would be a mere bagatelle. Let us by all means have an hospital for communicable diseases.

HEALTH BOARD RECORDS AND REPORTS.

The public records of the Board of Health are of great importance and are kept as carefully and accurately as possible. The reports of births to this office, and consequently the records of births

are incomplete, because the law requiring physicians and accouchers to report births does not provide a penalty for persons who do not report the same. The result is that only a small fraction of the births in Detroit, are recorded.

Our compilation of deaths is complete in as much as no undertaker can bury a body without first obtaining a permit from this office to be presented to the cemetery officials. The system used for this compilation is known as the "International Classification" and may be referred to in the report of the registrar.

The vault that has been used for the filing of records is entirely filled and we have this year been using a closet in addition to the vault. In case of fire such practice would prove disastrous and it will probably be necessary to have a large spacious vault built if we wish to properly secure these public records.

THE EMPLOYEES.

Smallpox has not kept your staff of employes particularly busy this year, but the unusual prevalence of diphtheria has robbed them of all their spare time. The quarantine inspectors have been very busy men, as may be seen in their individual reports. They have made as high as sixty calls in a single day. The total number of visits to quarantined houses made by Inspector Shellberg on the east side was 7,463, while his colleague, Inspector Boldt, made 9,556 calls on the west side during the year. All of your employes have been faithful and zealous in their work, and have aided the department in every way.

THE BOARD.

Closing my annual report I desire to again express to your Honorable Board my appreciation of the consideration and support that you have given me at all times. I am satisfied that without this hearty and consistent co-operation it would not have been possible to have obtained such satisfactory results in my work.

Respectfully submitted,

GUY L. KIEFER,
Health Officer.

REPORT OF SECRETARY.

July 1, 1904.

The Honorable the Board of Health :

GENTLEMEN—The following is respectfully submitted as the report of the Secretary for the fiscal year ending June 30, 1904 :

RECEIPTS AND EXPENDITURES.

	Fund	Expended	Balance	Overdraft
Antitoxin.....	\$ 500 00	\$ 1,599 99	.....	\$1,099 99
Advertising.....	75 00	51 15	\$ 23 85	.....
Care of poor patients	3,000 00	3,289 36	.....	289 36
Disinfectants	600 00	723 90	.....	123 90
Fuel	1,000 00	1,082 00	.....	82 00
Groceries.....	3,500 00	3,924 15	.....	424 15
General expense	400 00	361 49	38 51	.....
Hospital repairs.....	4,000 00	4,682 30	.....	682 30
Hospital supplies	150 00	165 02	.....	15 02
Transportation of small-pox patients.....	125 00	142 00	.....	17 00
Laboratory supplies	125 00	127 20	.....	2 20
Messenger service	125 00	341 90	.....	216 90
Postage.....	125 00	118 00	7 00	.....
Printing and stationery....	600 00	680 24	.....	80 24
Transportation.....	500 00	499 20	80	.....
Vaccine matter	300 00	125 00	175 00	.....
Labor, smallpox hospital..	750 00	800 48	.....	50 48
Labor, quarantine guards..	2,500 00	1,368 50	1,131 50	.....
Fixed salaries.....	22,668 00	22,668 00	.....	.....
	<hr/> \$41,043 00	<hr/> 42,749 88	<hr/> \$1,376 66	<hr/> \$3,083 54

The funds as above stated are the amounts allowed by the Board of Estimates for the fiscal year ending June 30, 1904, and the expenditures are for the same period.

The antitoxin fund, \$500.00, shows an overdraft of \$1,099.99, but this was provided for by a resolution of the Common Council permitting the use of \$100.00 from a balance of the previous year, and the use of \$1,000 of the quarantine guard fund, so that while the fund was overdrawn, the overdraft was fully provided for in the manner mentioned.

The fact that \$1,100.00 in excess of the amount appropriated was expended for the purpose of antitoxin in order that those too poor to buy this valuable medicine might be provided therewith, indicates that a liberal allowance should in the future be made for its purchase.

Great care is exercised in the dispensing of antitoxin, the written statement of the attending physician, testifying to the poverty of his patient, being exacted before it is given out.

The Care of Poor Patients fund of \$3,000.00 was overdrawn by \$289.36. By this fund is meant the care of such diphtheria and scarlet fever cases at Harper Hospital as it is necessary, by reason of poverty, to send there at public expense. As it has been found to be much cheaper to care for cases of these diseases at the hospital than at their homes, especially so where it is necessary to employ guards, as well as tending to restrict the spread of such diseases, it would therefore seem to appear that this fund was wisely and necessarily expended, and that a reasonable increase thereof should be provided for.

It is gratifying to know that the persistent efforts of your honorable body and your Health Officer to secure the granting of funds with which to erect a communicable disease hospital for diseases other than small-pox, was rewarded at the last session of the Board of Estimates by that body adopting a resolution requesting and urging the next Legislature to pass an act enabling the city of Detroit to issue bonds for the purpose of erecting an hospital for communicable diseases, such hospital to be under the general supervision of your honorable body.

Large sums of money are annually expended for purposes which do not seem to be of as much public importance and value as the erection of the hospital before mentioned. It is believed that the senators and representatives in the State Legislature from

the districts embracing this city will see the necessity of enacting at an early date in the next session the legislation so emphatically urged by the Board of Estimates, so that Detroit may not much longer be deprived of the advantages, both from a financial as well as humanitarian standpoint, of such an hospital.

The fund of \$600.00 for disinfectants was overdrawn \$123.90.

As we are obtaining our disinfectant at a very low rate, and only use it for disinfecting after quarantine for contagious diseases and at the small-pox hospital, it would appear that a larger fund for this purpose might properly be provided.

For fuel we were granted \$1,000 and expended \$1,082.00.

The expenditures on this account were unusually large, because of the long and very cold winter of last year and the consequent large orders necessary for quarantined houses and the small-pox hospital. If the hospital is not in use, and next winter should be milder than last, our expenditures upon this account should be considerably smaller for our present fiscal year.

For groceries, \$3,500.00 was allowed and \$3,924.15 expended; being an overdraft of \$424.15.

This fund was expended for grocery and food supplies necessarily furnished to poor persons and their families who were quarantined for contagious diseases, in cases where they refused to go, or it was impracticable, to send them to the hospital. The circumstances of all persons aided in this way are most carefully inquired into by our quarantine inspectors, and upon their judgment after such inquiry supplies are refused or granted.

For improvements and repairs to the small-pox hospital we were granted \$4,000.00 and expended \$4,682.30.

This overdraft was occasioned by the necessity of making certain improvements not apparently required when estimating the probable expenditures for these improvements.

The improvements consisted of the installation of an additional heating furnace, electric lighting throughout the building, new closets and bath-rooms, erecting of a number of partitions, painting the walls and ceilings with washable oil paint, the erection of a portico at the front door, new eave-troughs, conductors, and many

other smaller items ; the result being that Detroit now has one of the very best equipped and most comfortable smallpox hospitals to be found in our own or any other country.

For messenger service we were granted \$125.00 and expended \$341.90, an overdraft of \$216.90.

This service is used almost exclusively for the purpose of carrying and returning diphtheria culture boxes to the attending physician, and carrying antitoxin to such patients as are certified by the physician to be unable to pay therefor.

It cannot, therefore, be limited without impairing the efforts of this department to save the lives of those afflicted or threatened with this disease and to prevent its spread by immunizing those exposed thereto.

The fund for Printing and Stationery was \$600.00, and the expenditures \$680.24, an overdraft of \$80.24.

Like other departments of our city government, we are required to publish an annual report.

A resolution of the Common Council adopted January 15, 1901, directs your honorable body to print four hundred copies thereof for the use of the City Clerk. Annual reports are received by this department from cities in our own and other countries, necessitating a return of such compliments, requiring nearly as many more ; copies are sent to members of other city boards, the aldermen, estimators, physicians, and citizens requesting them, so that of the twelve hundred printed last year but few are left.

The remainder of this fund was expended for the letter head stationery of the department—envelopes, blanks for various reports, circular letters, and other matter issued by the Health Officer, postal cards for birth reports, blanks and cards used by physicians in the physical examination of school children, mortuary, births, and contagious disease record books, burial permit books, and other printed matter, all of which had to be procured to properly carry on the work of the department.

Every year it becomes necessary to print circular letters and pamphlets to call public attention to matters unforeseen but of vital importance to our citizens, so that the fund for this purpose

should be one of liberal proportions and amply sufficient to enable your honorable body to make use of "printer's ink" freely in matters pertaining to the public health.

Only those funds which proved to be inadequate to meet the necessary demands upon them have been discussed, and an effort made to show the necessity, upon the part of those having charge of the granting of the maintenance funds of this department, of accepting the judgment of your honorable body when considering the amounts necessary to provide for the requirements of Detroit's public health affairs.

The prevalence of smallpox at the close of the last fiscal year, and the special grants of funds by the Common Council with which to care therefor, so far relieved our funds for disinfectants, quarantine guards, labor and supplies at smallpox hospital, vaccine matter, livery and various other funds, that we had a balance of about \$1,700.00 at the close of the year, and this, together with a grant of \$500.00 in June, and various small amounts paid into the city treasury from time to time, enabled us to pay all this year's bills, without impairing the funds of the ensuing year.

SMALLPOX FUND.

The Smallpox outbreak which appeared in Detroit on September 9th, 1902, continued into this fiscal year, and remained with intervals throughout the year.

On June 20th, 1903, a balance of \$3,786.67 remained in this fund.

The expenditures during the fiscal year were as follows :

Disinfectants.....	\$ 126 00
Fuel	100 58
Groceries.....	1,106 33
General Expense.....	25
Hospital Repairs.	33 45
Hospital Supplies.....	263 05
Transportation of patients.....	138 00
Messenger Service.	17 55
Vaccine matter.....	63 00
Labor at Hospital	1,863 32
Quarantine Guards	995 00
Total.....	\$ 4,706 53
Fund, appropriation May 5, \$500.00, do., June 25, \$400.00, balance July 1, 1903, \$3,786.67.....	4,686 67
Deficit	\$ 19 86

In April last, the County Auditors paid the Health Officer \$112 86 for the care of smallpox patients from points in the county outside the city, this was paid into the city treasury and credited to our Labor at Hospital fund.

VACCINATION FUND.

On May 26, 1903, your honorable body presented a communication to the Common Council, embodying a report of Health Officer Kiefer recommending that you apply to that body for \$30,000, with which to carry on a general vaccination of the people of the city, in order to eradicate smallpox. After a hearing and full discussion of the question, the Council, on June 9th, appropriated the amount requested for the purpose stated. The work was begun on June 16, and completed early in July following.

The vaccinations performed fell short of the number expected, so that the expenditures were not so great as they were expected to be. A statement of these expenditures follows :

Vaccinators' fees	\$ 3,947 40
General expense.....	1 7 00
Messenger service.....	4 87
Postage.....	5 00
Printing and stationery.....	138 75
Vaccine matter.....	714 50
Total.....	<hr/> \$ 4,967 52

This appropriation was made with the understanding that it was to be drawn upon for the purpose of a general vaccination only, and the remainder did not, therefore, become a balance in the Board of Health fund.

BOARD OF EXAMINERS OF PLUMBERS.

By an act of the State Legislature the Board of Health is required to appoint a Board of Examiners of Plumbers, whose duty it is to hold meetings for the purpose of examining persons who may apply for licenses, to engage in the business or trade of master or journeyman plumbers in Detroit. The Board of Examiners so ap-

pointed holds meetings regularly every Monday evening at 8 o'clock, at the Board of Health building, for the purpose above mentioned.

The following is a brief statement of the work done during the year by that Board, and of the fees collected :

From renewals of licenses	\$ 680 00
From examinations	128 00
From registrations	193 00
	<hr/>
Total	\$1,001 00

Which amount was paid into the city treasury and credited to the Public Health fund.

The careful examination of those seeking licenses to engage in the business or trade of plumbing is causing much better and more accurate work to be done by plumbers, the public health being by this means largely protected against the unhealthful results of installing defective plumbing and drainage work.

Respectfully submitted :

JOHN F. McKINLAY,
Secretary.

REPORT OF THE REGISTRAR OF VITAL STATISTICS.

GUY L. KIEFER, M. D., Health Officer,

DEAR SIR—I respectfully submit the following as the report for the contagious disease and vital statistics departments for the year ending June 30th, 1904.

SUMMARY OF MORTALITY.

AGE	July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
Under 1 year.	103	133	122	74	72	50	77	85	72	90	72	93	.....
1 to 4 years.	21	27	15	31	44	37	45	38	30	30	30	45	.....
5 to 9 years.	12	14	6	17	27	26	18	15	14	15	18	15	.....
10 to 19 years.	19	14	13	22	24	16	22	23	28	29	30	24	.....
20 to 29 years.	33	27	31	33	40	29	40	37	41	44	43	48	.....
30 to 39 years.	26	32	38	33	32	39	40	35	38	35	37	34	.....
40 to 49 years.	36	37	32	37	47	47	36	40	48	30	34	31	.....
50 to 59 years.	28	47	32	35	36	45	47	48	38	36	42	38	.....
60 to 69 years.	41	45	31	52	40	53	48	47	48	37	41	33	.....
70 to 79 years.	35	26	25	39	35	53	51	53	47	37	39	26	.....
80 years and over.	24	27	15	19	22	28	26	26	23	26	27	19	.....
Still born.	41	31	30	40	31	24	29	23	30	23	18	30	.....
Total.	419	460	389	432	450	447	479	467	457	432	431	426	5,289

SUMMARY OF MORTALITY—Continued.

NATIVITIES.

PLACE OF BIRTH	July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
Detroit	182	209	170	187	192	210	176	185	181	188	109	204	.....
Michigan	30	64	44	39	61	59	51	43	53	64	68	58	.....
Other States	32	46	38	44	55	48	65	51	59	47	51	44	.....
Austria	2	3	2	2	1	2	2	.....	.....	2	3	.....	.....
Australia .....	.....	.....	.....	1	.....	.....	1	.....	.....	1	.....	.....	.....
Bohemia .....	.....	2	.....	1	.....	.....	5	6	2	2	1	.....	.....
Belgium .....	.....	2	1	4	1	2	1	1	2	.....	1	1	.....
Bavaria	1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Canada	27	30	25	32	23	43	43	40	32	27	43	25	.....
Denmark .....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
England	9	17	7	13	8	19	12	18	11	6	9	7	.....
France	2	1	.....	.....	.....	.....	2	1	2	2	.....	.....	.....
Germany	60	59	52	63	68	70	66	74	66	66	47	52	.....
Greece .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Holland	2	2	.....	1	.....	.....	.....	.....	3	3	2	3	.....
Hungary .....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Ireland	16	15	15	13	21	24	27	25	28	17	26	29	.....
Italy	2	1	.....	1	5	.....	2	1	5	1	3	3	.....
Poland	2	3	.....	2	5	5	2	1	3	2	1	4	.....
Prussia	1	3	.....	1	1	1	.....	.....	2	1	.....	.....	.....
Russia	4	1	2	2	1	2	5	4	1	4	.....	1	.....
Scotland	1	3	3	7	6	12	6	13	3	6	5	5	.....
Spain .....	.....	2	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Sweden	1	.....	2	1	1	.....	1	2	1	1	.....	.....	.....
Switzerland .....	.....	.....	1	.....	2	.....	.....	.....	.....	1	1	1	.....
Not Stated	7	9	13	10	6	7	5	6	4	7	8	4	.....
Asia	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	392	473	376	426	458	504	472	471	460	448	378	441	5,289

SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH		July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
1. General Diseases.														
1	Typhoid Fever (Abdominal Typhus)	3	8	4	6	10	5	2	5	5	5	6	5	64
2	Typhus, Exanthemic													
3	Fever, Recurrent													
4	Fever, Intermit't and Malarial Cachexia			1				2	1	1				5
4 ^a	Malarial Cachexia													
5	Varicella		1						1					2
6	Measles	1					2		3	1	2	5	3	17
7	Scarlatina	2	1	1	1	1	7	13	7	3	1	1		38
8	Whooping Cough	2	6	2	1	2			1				1	15
9	Diphtheria and Croup													
9 ^a	Diphtheria	8	16	10	22	43	26	19	18	8	7	10	5	192
10	Grippe						2	4	3	3	4	1		17
11	Miliary Fever													
12	Cholera, Asiatic													
13	Cholera, nostras													
14	Dysentery	3	8	1	1				1	1				15

SUMMARY OF MORTALITY—Continued.

[illegible]

REPORT OF THE BOARD OF HEALTH

CAUSES OF DEATH													
	July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
I. GENERAL DISEASES—Continued.													
59 Other Chronic Poisonings.....													
II. Diseases of the Nervous System and Organs of Special Sense.													
60 Encephalitis.....													
61 Meningitis, Simple.....	4	3	3	1	1	4	4	2	5	4	8	9	48
61a Meningitis, Epidemic Cerebo-Spinal.....	6	5	4	3	5	6	7	4	4	2	6	8	60
62 Locomotor Ataxia, Progressive.....	1					2		2					5
63 Other diseases of the spinal cord.....			1			2		1					4
64 Cerebral Congestion and Hemorrhage.....	4	5	3	5	7	4	8	7	7	4	5	1	60
65 Cerebral Softening.....	3	2	1	2	1	2	2		2		2		17
66 Paralysis without Specified Cause.....		8	5	7	3	9	13	5	11	5	9	7	82
67 Paralysis, General.....	3		2		1	2	1			2	4	4	19
68 Other forms of Mental Alienation.....			2	2	3	3	1	2	2		3	3	21
69 Epilepsy.....	1			1	1	1		1	1		3	3	12
70 Eclampsia (nonpuerperal).....													
71 Convulsions of Children.....	16	11	8	4	11	10	18	10	15	20	19	13	155
72 Tetanus.....	3	2	1	1	1								8

SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH		July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
II. DISEASES OF THE NERVOUS SYSTEM AND ORGANS OF SPECIAL SENSE.														
73	Chorea													
74½	Other Diseases of the Nervous System	5	4	4	2	4	2	6	2	2	5	4	4	44
75	Diseases of the Eye and its Adnexa													
76	Diseases of the Ear													
III. Diseases of the Circulatory Apparatus.														
77	Pericarditis			1		1	1			4				7
78	Endocarditis, Acute	1	4	2	3	4	1	1	2	4	5	1	6	34
79	Organic Diseases of the Heart	18	19	21	26	45	29	25	36	27	22	38	27	333
80	Angina Pectoris		2	2	2		5			2		1	1	15
81	Affections of the Arteries (Atheroma Aneurism, etc.) ..	4	1	1	2	3	4	1	1	2	3			22
82	Embolus and Thrombosis	19	20	23	13	7	13	8	13	6	12	10	10	154
83	Affections of the Veins (Varices, Hemorrhoids, Phlebitis)													
84	Affections of Lymphatic System (Lymphangitis, etc.) ..													
85	Hemorrhages													
86	Other Affections of the Circulatory System			1	1	2	1	1	1		1	1		9

SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH													
	July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
V. DISEASES OF THE DIGESTIVE APPARATUS —Continued.													
101 Affections of the Pharynx		1			1			1	1		1		5
102 Affections of the Esophagus													
103 Ulcer of the Stomach		2		3		1		1	1		2		10
104 Other Affections of the Stomach (Cancer excepted).	1	1		1			1						4
105 Diarrhea and Enteritis (under 2 years)	72	48	17	9	10	25		1	2	2	5	9	200
105a Diarrhea and Enteritis, Chronic	7	10	9	2	2	3	2		1		5	1	42
106 Diarrhea and Enteritis (2 years and over)	40	24	22	11	14	11	8	11	5	5	7	10	168
107 Intestinal Parasites													
108 Hernias, Intestinal Obstructions	3	2	5	6	7	1	4	3	4		4	1	40
109 Other Affections of the Intestines	7	1	3	3	2	1	1	3	1	1	1	1	25
110 Icterus Gravis	2			1	1		1			1		2	8
111 Tumors, Hydatid, of the Liver	3			2			6		1	1	1	1	15
112 Cirrhosis of the Liver	3	2	2	4	2	2	6	5	4	3		1	34
113 Biliary Calculi	1	1				1	1				1	3	9
114 Other Affections of the Liver			3		1	1			4	1	2		12

SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH	July, 1903												Total
	August	September	October	November	December	January, 1904	February	March	April	May	June		
VI. DISEASES OF THE GENITO-URINARY APPARATUS AND ITS ADNEXA—Continued.													
128 Hemorrhage, Uterine (nonpuerperal).....													
129 Tumors, Uterine (noncancerous).....													
130 Other Diseases of the Uterus.....			1	1								2	
131 Cysts and other Tumors of the Ovary.....					1	1						2	
132 Other Diseases of the Female Genital Organs.....													
133 Nonpuerperal Diseases of the Breast (cancer excepted).....													
VII. The Puerperal State.													
134 Accidents of Pregnancy.....													
135 Hemorrhage, Puerperal.....	1	2	1	1	1	3	2		4		1	18	
136 Other Accidents of Labor.....													
137 Septicæmia, Puerperal.....	1	5	4	5	2	3	7	5	2	4	5	44	
138 Albuminuria and Puerperal Eclampsia.....													
139 Phlegmasia Alba Dolens, Puerperal.....													
140 Other Puerperal Accidents—Sudden Death.....	2	2		1		1			1			7	

SUMMARY OF MORTALITY—Continued.

Table showing computation for the death rate of the city.

MONTHS.	Total	Still Born	Died Outside of City	Net
July, 1903.....	514	41	5	468
August.....	448	31	9	408
September.....	380	30	11	339
October.....	432	40	9	383
November.....	471	31	12	428
December.....	522	24	20	478
January, 1904.....	437	29	9	399
February.....	465	23	12	430
March.....	401	32	14	354
April.....	416	23	18	375
May.....	402	18	8	376
June.....	402	20	21	361
Total.....	5,289	342	148	4,799
Still-born and died outside.....	490			490
Total death in city.....	4,799			5,289

Death rate per 1000 per annum, 15.11, on a basis of 317,000 inhabitants, as shown by State Census.

CONTAGIOUS DISEASES

Table showing deaths by months from contagious diseases.

DISEASE	July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
Diphtheria.....	8	16	10	22	43	26	19	18	8	7	10	5	192
Scarlet Fever.....	2	1	1	1	1	7	13	7	3	1	1	....	38
Small Pox.....		1	....	....	....	....	....	1	....	....	....	....	2

CONTAGIOUS DISEASES—Continued.

Table showing present condition of contagious diseases.

DISEASE	Total number of cases, June 30th, 1903	DURING THE YEAR			Total number of cases, June 30th, 1904.	Number of Houses Quarantined, June 30th, 1904.
		New cases Reported	Recoveries Reported	Deaths		
Diphtheria.....	19	1,433	1,241	192	10	9
Scarlet Fever.....	13	575	537	38	12	7
Small Pox.....	26	99	97	2	5	10

Table showing cases reported by months in comparison with preceding years.

MONTH	DIPHTHERIA				SCARLET FEVER			
	1901	1902	1903	1904	1901	1902	1903	1904
July.....	13	2	24	48	30	34	21	17
August.....	21	4	46	62	27	36	62	10
September.....	43	16	59	86	21	84	56	26
October.....	56	23	83	76	47	71	95	43
November.....	58	27	193	224	46	92	126	38
December.....	48	24	138	252	80	89	45	87
January, 1904.....	64	37	110	211	75	110	54	106
February.....	40	31	68	119	55	74	36	78
March.....	21	33	64	84	78	123	24	59
April.....	27	29	51	95	36	124	29	49
May.....	20	32	66	75	44	89	31	39
June.....	10	23	74	101	39	50	19	23
Total.....	421	281	976	1,433	576	976	598	575

MEDICAL INSPECTION OF SCHOOLS.

Following is the total result of such inspection :

Number of pupils examined	3,452
Number of pupils excluded	267
Small Pox	
Scarlet Fever	14
Diphtheria	2
Tonsilitis	99
Measles	8
Mumps	
Impetigo	36
Whooping Cough	7
Pediculosis	38
Chicken Pox	8
Other Diseases	55
Total	267

BIRTHS REPORTED

For the year ending June 30, 1904.

MONTH	Male	Female	Total
July, 1903	96	94	190
August	118	82	200
September	117	79	196
October	157	120	277
November	114	111	225
December	121	135	256
January, 1904	113	148	261
February	119	156	275
March	137	142	279
April	119	140	259
May	121	107	228
June	86	98	184
Total	1 418	1,412	2,830

REPORT OF FUNERAL INSPECTOR.

MONTH	FUNERALS ATTENDED		DISINFECTIONS						
	Diphtheria	Scarlet Fever	Houses for Typhoid	Houses for Consumption	Houses for Pneumonia	Houses for Meningitis	Persons	Parcels of Clothing	School Rooms
July, 1903.....	10	1	2	23	.....	.....	45	7	1
August.....	14	1	2	19	.....	.....	42	4	2
September.....	11	1	3	25	.....	.....	46	8	36
October.....	21	2	4	21	.....	.....	84	16	37
November.....	40	.....	2	18	.....	.....	127	23	63
December.....	29	5	3	27	.....	.....	98	36	51
January, 1904.....	24	12	2	24	9	.....	92	16	50
February.....	16	6	5	20	41	6	71	30	21
March.....	6	3	3	22	37	9	38	19	12
April.....	9	2	5	26	40	5	24	21	49
May.....	9	2	4	19	35	7	37	18	46
June.....	13	2	5	21	39	8	44	28	14
Total.....	202	37	40	265	201	35	748	231	382

It is the duty of the Funeral Inspector to copy all death certificates and forward them to the Secretary of State.

Funeral Inspector R. P. Vandy during the year ending June 30th, 1904, has copied 5,289 certificates of death and transmitted same to the Secretary of State at Lansing, Michigan.

Respectfully submitted,

H. T. RENSHAW,
Registrar.

Detroit, June 30, 1904.

REPORT OF MEDICAL INSPECTOR.

Guy L. Kiefer, M. D., Health Officer :

Dear Sir—I respectfully submit the following report for the year ending June 30th, 1904.

The number of disinfections performed during the year is considerably smaller than for the year previous. The number of cases of diphtheria on the east side of the city was increased, but both scarlet fever and smallpox were reduced. The reduction in smallpox was particularly noticeable. During the year ending June 30th, 1903, I disinfected 760 small-pox houses, whereas this year I was sent to only seventy-seven houses infected with this disease. The wonderful reduction was undoubtedly due to the thorough general vaccination, which was performed under your direction, and also to the speedy removal of nearly all cases of smallpox to the hospital. In this connection, I desire to say, that an hospital for the reception of cases of diphtheria and scarlet fever is an absolute necessity in Detroit. By the establishment of such an institution I believe the spread of these communicable diseases could be largely restricted.

I wish to congratulate the Board of Health and yourself on having been granted an appropriation to be expended for a daily medical inspection of schools. The volunteer system of inspection introduced by the Health Officer has done much to restrict the various diseases common among school children and an improvement of the system is to be welcomed.

During the year I have investigated a number of suspicious cases, all the cases of smallpox being verified by yourself.

The number of disinfections performed during the year is as follows :

Smallpox.....	77
Scarlet Fever.....	245
Diphtheria	1,040
	<hr/>
	1,362

Respectfully submitted,

PHILIP J. LORANGER, M. D.,
Disinfectors and Medical Inspector.

REPORT OF MEDICAL INSPECTOR.

July 1st, 1904.

Guy L. Kiefer, M. D., Health Officer.

Dear Sir :—I have the honor to submit the following report as Medical Inspector and Disinfector of the west side of the city for the fiscal year ending June 30th, 1904

I desire to especially call your attention to the results obtained in this district through the vigorous methods inaugurated by you, for the prevention of the spread of the various diseases hereinafter enumerated. The stringent quarantine relations, the prompt handling of all cases brought to our notice, the medical inspection of schools, together with thorough disinfection of persons and effects have not only reduced the mortality record, but also the actual number of cases of both diphtheria and scarlet fever as compared with last year, and practically eliminated smallpox from our list.

Your campaign of education has also borne fruit; for it is a more difficult matter for the careless and indifferent to suppress contagion than heretofore, for every neighbor now considers it his duty to guard the health of his community, this being evidenced by the number of calls to which I have responded through complaints coming directly from persons who suspect communicable disease in their respective localities. For this happy result you are to be congratulated, because I attribute it to the effort put forth by you in circular literature, explaining the methods of handling these diseases, and the lectures delivered by you to mothers' clubs, and

the faculty of our public schools upon these questions so vital to the existence of the community, for only through the co-operation of an enlightened populace can we hope to successfully combat dangerous communicable disease.

SMALLPOX.

The number of smallpox cases in the district during the year was small and sporadic in character, only furnishing versatility to an otherwise routine work. I disinfected 30 houses, investigated and diagnosed 10 cases, vaccinated all exposed persons, kept them under observation for 17 days, and treated the few who remained at home in quarantine.

SCARLET FEVER.

There has been a gratifying decrease in scarlet fever each year since you assumed charge of the health department; but I have the pleasure to report that the results of the present year have far excelled the fondest hope of the most sanguine sanitarian. The district is practically free from scarlet fever. Your orders for handling the same have been rigidly adhered to; the average quarantine has been 21 days, and while the source of infection is questionable, I have handled the cases as if desquamation were the sole etiological factor. That the means justify the end would seem apparent from the present status of the disease.

DIPHTHERIA.

The wisdom of an eight-day quarantine in diphtheria is shown in the reduction of the total number of houses quarantined as compared with last year. The public is gaining confidence in the efficacy of antitoxin, and the use of the same has largely increased, another evidence of the results of the educational campaign.

A study of these gratifying results would seem to a casual observer to be all that could be desired by practical sanitarians, and yet how much more might be accomplished if all the essentials necessary to combat these diseases were at your disposal. A

glimpse at the homes and environment of 95% of the children suffering from diphtheria and scarlet fever at once suggest a hospital for the care and treatment of such patients, and my experience has been sufficient to cause my endorsement of the absolute necessity of the same.

I herewith append tabulated statement of the total amount of inspections, disinfections and miscellaneous work as follows : Inspection of suspicious cases, 70, diagnosed as follows:

Smallpox	10
Chickenpox	5
Scarlet Fever	6
Diphtheria	3
Miscellaneous { Impetigo, Vaccinia, Urticaria, Eczema, }	46

DISINFECTIONS.

Scarlet Fever	335
Diphtheria	437
Smallpox	30
Total number of disinfections	802

Respectfully submitted,

J. W. AMES, M. D.,
Medical Inspector.

REPORT OF QUARANTINE INSPECTOR.

Detroit, July 1, 1904.

Guy L. Kiefer, M. D., Health Officer.

Dear Sir:—I hereby submit my report for the fiscal year ending June 30, 1904.

	July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
Number of Visits.....	262	212	438	840	928	853	834	686	724	616	516	545	7454
Number of Grocery Orders.....	11	5	35	73	86	151	186	72	43	47	40	50	799
Number of Fuel Orders.....	1	.....	.....	13	10	24	26	22	12	8	2	.....	118

While the east side was almost free from small pox and scarlet fever, your inspector was kept very busy taking care of diphtheria. A greater number of poor families had to be supplied this year than ever before, most of them living two and four families in a house.

In no instance did the family receive more supplies than absolutely necessary. It is a task for your inspector to keep down expenses, and also to keep the people who are quarantined content and at their homes, a call being made every day if possible. Your inspector had to swear out six complaints for persons willfully breaking quarantine; these persons were brought before the Court

and in all cases a fine was imposed, which created hard feelings against your inspector, but he must enforce the law, thereby obeying his superiors' orders. Some of the families afflicted with diphtheria, suffered the loss of two or three of their children on account of the fact that they could not be given the best of care and attention at their homes.

All this misery for the parents and cost to the city could be reduced by one-half if this city would supply the money for a contagious disease hospital, such as has been recommended by the present Health Officer and Board of Health.

Respectfully submitted,

B. F. SCHELLBERG,
Quarantine Inspector.

REPORT OF QUARANTINE INSPECTOR.

Detroit, Mich., July 1, 1904.

Guy L. Kiefer, M. D., Health Officer.

Dear Sir:—I herewith submit my annual report for the fiscal year ending June 30, 1904, as follows:

	July, 1903	August	September	October	November	December	January, 1904	February	March	April	May	June	Total
Number of Visits	290	224	297	873	1147	1632	1665	1329	855	492	513	239	9556
Number of Grocery Orders.....	42	34	31	63	51	154	173	165	56	46	33	23	877
Number of Fuel Orders.....	3	2	6	9	17	34	46	56	18	14	5	1	211

The fiscal year just completed, has been another busy one for the Health Officer and his assistants. Although smallpox was not so prevalent as during the previous year, which required considerable attention, your inspector was kept quite busy looking after scarlet fever and diphtheria cases, the number of calls being 430 above last year, 62 less grocery orders and only twelve more fuel orders, notwithstanding the long and severe winter.

I had no great difficulty to have quarantined families comply with the quarantine laws and regulations, with the exception of one, who was prosecuted, found guilty and fined \$25.00 or 90 days, which seems to have borne good fruit.

It frequently happens in thickly populated parts of the city, flats or tenement houses, where cases of contagious diseases occur, that it is months before it can be stamped out, the disease apparently propagating itself almost from door to door, therefore our city officials could perform no better act to the community and themselves than to speedily erect a city hospital for contagious diseases, where all could receive good care and isolation. Let us have the hospital!

Respectfully submitted,

HERMAN F. BOLDT,

Quarantine Inspector.

REPORT OF THE SANITARY ENGINEER.

DETROIT, July 1st, 1904.

Guy L. Kiefer, M. D., Health Officer:

DEAR SIR :

I herewith submit a report of the work of the sanitary department during the year ending June 30th, 1904.

DRAINAGE.

The inspection of drains and plumbing work in this city, as required by public act of 1901, has been very satisfactory. During the year we have had no occasion to take any cases into court, in order to compel compliance with the provisions of our rules and regulations. Wherever we have found deviations from what was required, a notice from this office has been sufficient to have the errors immediately corrected.

The following table gives in detail the work of the inspectors, showing an increase over those of last year, notwithstanding the extreme cold weather of the past winter, which prohibited plumbing work for three months and the strike of the journeymen plumbers, which held up work for about six weeks during the spring.

MONTH	Plumbing of Buildings		Drains	Special	Smoke Tests	Total	Last Year
	Old	New					
1903							
July.....	63	248	281	96	1	699	496
August	76	232	271	86	2	667	579
September	57	192	299	81	.....	629	494
October.....	67	316	329	76	.....	788	722
November.....	37	242	287	52	.....	618	564
December.....	32	205	172	37	.....	446	569
1904							
January.....	39	112	71	39	.....	261	294
February.....	14	38	34	38	3	127	323
March	73	187	153	66	4	483	595
April.....	89	183	445	70	2	789	530
May.....	90	232	396	75	4	797	701
June.....	112	317	439	82	4	954	745
Total	749	2,504	3,177	798	20	7,248	6,612
Increase over last year.....							636

BOARD OF EXAMINERS OF PLUMBERS.

The examination and licensing of plumbers as required by public act of 1901, has been performed by the Board according to the provisions of the act. During the year they have issued 212 licenses to Master Plumbers, and 184 licenses to Journeymen Plumbers. They have also issued 193 certificates of registration to mason contractors for the construction of drains within the city limits. Eight applicants for licenses as plumbers failed to pass. The receipts from the above as prescribed in the act were \$1,001.00, \$1,000.00 of which was paid into the city Treasury. We were obliged to make two complaints against journeymen for failure to renew their licenses, both of which complied before the cases came to trial. After this we had no further trouble from the others who had been backward in renewing.

During the strike of the journeymen plumbers, this department maintained a position of strict neutrality in the enforcing of the provisions of the act.

QUARANTINE.

The work of providing supplies to families placed under quarantine who were found to be in need of assistance, has been performed as usual. In the following table giving the details of the work, a comparison with that of a year ago, shows that while 38 more families were placed under quarantine during the year, there was a decrease of 269 families who needed assistance, with a decrease of \$5,696.30 in the expense account. This was owing to the decrease of small-pox. During the prevalence of small-pox, the families have to be maintained in addition to the extra expense of keeping the cases at the city hospital. The following table gives in detail the work, and shows that the cost to the city for provisions issued, was 13 cts. per day, for each individual supplied, or $4\frac{1}{4}$ cts. per meal. From this it will be seen that the gifts of the city have not been abused.

MONTH	Number of Families quarantined.	Number of Families supplied.	Number of Persons supplied.	Average time of Quarantine in days.	Cost of supplies to Families.	Cost of supplies for City Hospital.	Cost of supplies for Health Building.	Total cost to City.
1903								
July	54	21	92	5½	\$ 176 91	\$ 244 70	\$ 5 19	\$ 426 80
August	64	17	78	7	125 29	40 59	.....	165 88
September	104	28	157	8½	170 26	1 40	1 20	172 86
October	190	49	230	10	277 31	12 16	1 04	290 51
November	243	61	341	8½	352 37	25 83	.....	378 20
December	275	111	584	9¼	694 28	32 91	.....	727 19
1904								
January	233	120	619	10	705 42	44 30	1 60	751 32
February	155	79	408	10½	479 00	62 42	59	542 01
March	95	39	197	9½	210 15	36 50	.....	246 65
April	95	35	175	9½	203 45	89 05	78	293 28
May	69	25	124	12½	164 40	99 00	.....	263 40
June	89	28	145	9¼	153 42	97 83	.....	251 25
Total	1,666	613	3,150	9	\$3,712 26	786 69	\$ 10 40	\$ 4,509 35
Last year	1,628	882	4,721	11	7,103 98	3,101 67	.....	10,205 65
Decrease		269	1,571	2	3,391 72	2,304 58	.....	5,696 30
Increase	38							

GARBAGE COLLECTION.

In former years, complaints for failure to collect were given to the superintendent of the garbage company to investigate and collect within 24 hours as specified in the contract with the city. Since April 1st of this year, each complaint has been investigated by our garbage inspector to find out how many were due to fault of the company in not living up to the terms of their contract.

From the table it will be seen that out of 589 complaints received during the months of April, May and June, 425 were due to neglect by the collectors, 74 were the fault of the householders in not keeping the garbage where it could be found by the collector, or else from mixing rubbish with the garbage or throwing it in the alley, 40 were first notices from new houses to have the garbage taken, 15 wrong numbers were given, and no cause could be found, and 35 were complaints against filthy yards and were not complaints for neglect on the part of the company. 70 per cent were therefore, directly chargeable against the company.

COMPLAINTS FOR NON-COLLECTION OF GARBAGE —Cause of Complaint.

MONTH	Fault of Collector, Neglected.	Fault of House-holder.	New houses, First notice to call.	Wrong Number Given.	Not a Garbage Complaint.	Total.
1903						
July.....						182
August.....						138
September						334
October.....						136
November.....						142
December.....						310
1904						
January						235
February						180
March						129
April	98	29	5		2	134
May	112	23	24	7	10	176
June.....	215	22	11	8	23	279
Total	425	74	40	15	35	2,375

SANITARY POLICE.

The majority of the nuisance complaints received are given to the sanitary squad of the Metropolitan Police to investigate and see that the city ordinances are enforced concerning such complaints. Many, however, are of a nature which requires special investigation by our own inspectors before turning them over to the police department. Such investigations appear in the table of drainage inspections under the head of special.

The following table gives the work performed by the sanitary squad for the Board of Health, from which it will be seen that diphtheria was the prevailing disease during the past year.

MONTH	Circulars on Contagious Disease Distributed	Nuisance Complaints Investigated	Houses Placarded For		
			Scarlet Fever	Diphtheria	Small Pox
1903					
July	156	313	10	42	2
August	192	185	9	55	.....
September.....	309	256	24	79	1
October.....	564	153	24	164	2
November	723	70	36	205	2
December.....	819	47	65	208	2
1904					
January.....	699	66	76	157	.....
February.....	465	84	60	95	.....
March.....	285	99	45	50	.....
April.....	279	133	27	66	2
May.....	201	181	24	43	2
June.....	367	257	17	72	.....
Total.....	4,959	1,844	417	1,236	13
Last year.....	3,767	1,864	493	851	284

EXAMINATION OF AIR.

During the past winter, tests for the purity of air in our schools have been continued by the Chemists and myself. This year we have selected the leading private schools of the city and the results of our work is given in the following table.

Seven parts of carbon dioxide in 10,000 parts of air, is the generally accepted evidence of standard ventilation. From 7 parts to 9 parts as evidence of poor ventilation, and above 9 parts as bad. The figures given in the column under carbon dioxide show the purity of the air of the room as judged by this accepted standard of measurement.

To get a correct expression of the efficiency of the ventilation taking place in each given instance, many other factors must receive consideration, as the amount of air space for each person in the room and the time the room had been occupied when the test was made, these items are indicated in the column headed remarks.

Our tests were purposely made during the cold spell when recourse to windows was reduced to a minimum, the outside temperatures ranging from 1 to 28 degrees above zero.

Respectfully,

A. B. RAYMOND,
Sanitary Engineer.

in room at time of test for Carbon Dioxide.	REMARKS
d d d sable d	This school has the facilities for obtaining good ventilation by gravity. Temperatures indicate rooms had been aired just before tests.
d sable d	Cold day, inlets and windows closed. Inlets open. Window slightly lowered. Window slightly lowered.
sable	Small air space, change of air mainly by windows while most of the rooms have vents, there is very little movement of air Ventilation poor and inadequate.
d d sable d d	This school makes a good showing. Toilet arrangements first class. School well kept.
sable	Pupils come in classes, seldom remain long at a time. This room heated by small stove, no ventilation.
sable sable	Favorable showing due to small attendance. " " " " " " No ventilation open to Shorthard Dept.
sable sable sable	Favorable showing due to small attendance. " " " " " " " " " " " "
d d d d	Very poor ventilation. System inadequate for the demands upon it. At time of test there was very little movement of air, vents not working.
d	No ventilation when windows are closed.
d d d	9.45 a.m. } Smokestack from boiler in central 9.50 a.m. } vent flue to create out draft, from lack 10.25 a.m. } of fresh air supply, no movement.

SCHOOLS	LOCATION	DATE OF VISIT		Outside Temperature	SYSTEM OF HEATING AND VENTILATION	FLOOR	ROOM	Cubical Contents of Room in Cubic Feet	Number of Seats	Number of Pupils	Cubic Air Space, per Seat	Cubic Air Space, per Pupil	Temperature of Room	Humidity	Parts Carbon Dioxide in 10,000 Parts of Air	Condition of Air in room at time of test for Carbon Dioxide	REMARKS										
		Month	Day																								
Detroit Seminary.....	643-645 Jefferson Ave.....	1903 Dec.	16th	28°	2 hot air furnaces, open grates in each room, all rooms open to Central hall, fresh air inlets at base of each window. Ventilators on 3d floor	1	Front.....	3,668	22	10	166	367	67	26	5.9	Good	This school has the facilities for obtaining good ventilation by gravity. Temperatures indicate rooms had been aired just before tests.										
						1	Middle.....	2,576	16	10	161	257	64	22	5.9	Good											
						1	Rear.....	3,082	24	6	129	513	63	21	5.2	Good											
						2	Rear.....	2,156	20	17	102	121	64	22	7.1	Passable											
						3	Front.....	3,564	31	17	115	210	70	31	6.6	Good											
		1904 Jan.	29th	15°	2nd visit.	1	Front.....			14			71	23	9.1	Bad		Cold day, inlets and windows closed. Inlets open.									
						1	Middle.....			5		70	19	6.1	Good												
						1	Rear.....			0																	
						2	Rear.....			9		70	19	7.5	Passable	Window slightly lowered. Window slightly lowered.											
						3	Front.....			11		73	19	6.6	Good												
Detroit University School for Boys.....	22-24 Elmwood Ave.....	Jan.	6th	28°	Steam—direct radiation—ventilation by gravity through vents and windows main assembly rooms have both direct and indirect radiation.	2	Main assembly.....	16,340	166	68	99	246	73	29	11.9	Bad	Small air space, change of air mainly by windows while most of the rooms have vents, there is very little movement of air Ventilation poor and inadequate.										
						2	S. E. recitation.....	3,250	20	18	162	181	68	38	13.6	Bad											
						2	N. E. recitation.....	4,620	28	24	165	192	62	41	11.1	Bad											
						2	Intermediate assembly..	21,728	103	55	211	395	72	31	8.2	Passable											
						1	N. Middle recitation....	3,135	15	10	209	313	70	29	9.7	Bad											
Detroit Home and Day School.....	S. E. Cass Ave. and Stimson St.....	Jan.	7th	28°	Steam, direct and indirect radiation, fan, electric motor.	1	A.....	8,112	44	21	184	386	68	27	6.4	Good	This school makes a good showing. Toilet arrangements first class. School well kept.										
						1	B.....	4,080	12	8	340	510	72	24	6.1	Good											
						2	H.....	16,164	115	107	140	151	71	23	7.7	Passable											
						2	I.....	4,320	24	17	180	254	72	28	6.9	Good											
						2	North Middle.....	2,652	16	13	166	204	69	24	6.1	Good											
Thomas Normal Training School.....	550 Woodward Ave.....	Jan.	19th	24°	Steam, direct radiation, change of air by windows.	1	Main Assembly.....	6,072	60	3	100		69	21	7.9	Passable	Pupils come in classes, seldom remain long at a time. This room heated by small stove, no ventilation.										
						2	Front South.....	2,310	10	6	231		69	28	9.1	Bad											
						2	Rear Music.....	1,224		3			62	32	10.3	Bad											
Miles Business College.....	78 Miami Ave.....	Jan.	25th	2°	Steam, direct radiation, change of air by windows, also small inlets and vents.	3	Business Dept.....	28,200	93	27	303	1,004	70	25	7.1	Passable	Favorable showing due to small attendance.										
						3	Shorthand Dept.....	17,100	70	18	244	950	65	27	8.7	Passable											
						3	Typewriting Dept.....	3,240	14	11	231	294	66	29	9.2	Bad											
Metropolitan Business College.....	S. W. Grand River and Rowland St.....	11 a. m. Jan.	28th	5°	Steam, direct radiation, change of air by windows.	3	Main assembly.....	14,763	108	31	136	476	67	19	7.9	Passable	Favorable showing due to small attendance.										
						3	Typewriting.....	5,827	23	18	250	324	70	25	8.7	Passable											
						3	Shorthand.....	7,570	27	14	280	540	69	21	8.7	Passable											
Detroit Business University.....	1119 Wilcox St.....	3 p. m. Jan.	28th	16°	Steam, direct radiation, small inlets under radiators for fresh air, and vent flues in partitions for removal of foul air.	3	12.....	12,540	80	52	156	241	70	29	13.6	Bad	Very poor ventilation. System inadequate for the demands upon it. At time of test there was very little movement of air, vents not working.										
						3	14.....	6,588	27	23	224	236	70	25	10.1	Bad											
						4	23.....	27,898	127	64	219	435	71	33	10.3	Bad											
						4	22.....	17,797	86	64	206	278	70	30	11.9	Bad											
						4	G.....	4,069	26	24	156	169	69	35	13.8	Bad											
						5	32.....	31,598	100	62	316	500	72	31	12.7	Bad											
						Lewis School for Stammerers.....	35-41 Adelaide St..	Feb.	11th	12°	Steam, direct radiation, change of air by windows.	1	Assembly.....	22,099		45			491	66	21	11.1	Bad	No ventilation when windows are closed.			
Detroit College of Medicine..	250 St. Antoine St.....	Feb.	1st	1°	Steam, direct radiation, vent flues in each room to one central stack, windows and doors for inlets.							2	4.....		100	87		70	29	13.6	Bad	9.45 a. m. } Smokestack from boiler in central vent flue to create out draft, from lack of fresh air supply, no movement. 9.50 a. m. } 10.35 a. m. } 10.45 a. m. }					
												2	1.....		125	65		68	27	15.0	Bad						
						3	3.....		100	72		69	31	17.3	Bad												
																		3	2.....		100	56		65	32	17.7	Bad
																		Michigan College of Medicine.....	1-3 Porter St.....	Feb.	18th	8°	Steam, direct radiation, change of air by windows.	2	Senior Lect.....	14,520		42		346	67	41	16.7	Bad	No ventilation unless windows can be opened.
2	Sophomore and Freshm'n	17,280		45		384	67	33	11.9	Bad																	
McKinley Public School.....	N. W. Stanly and Greenwood.....	2.30 p. m. Feb.	18th	10°	Indirect radiation modern steam fan heat regulation.	1	E.....		48	25			76	18	6.9	Passable	This test was made to find what effect partial ventilation was having on the school. Two batteries of the heating coils were not in work-order, and fresh air supply had been partially shut off to keep up temperature of rooms.										
						1	F.....		48	32			72	12	7.0	Passable											
						1	G.....		50	35			73	22	7.1	Passable											
						2	A.....		50	30			72	24	9.1	Bad											
						2	B.....		50	40			71	27	9.1	Bad											
						2	C.....		48	39			70	25	8.2	Passable											
						2	D.....		48	40			72	28	8.7	Passable											
Irving Public School.....	North, Willis, west of Woodward.....	p. m. Feb.	19th	15°	Indirect radiation steam fan, no heat regulation.	1	F.....	9,108	48	38		239	73	16	5.9	Good	This school is on record in our annual report for 1901-1902 New test was made on account of complaint that the school was poorly ventilated. Complaint was not sustained by either test. Complaint was undoubtedly caused by lack of heat regulation.										
						1	G.....	9,108	48	44		207	73	16	6.4	Good											
						1	H.....	9,108	48	45		202	73	16	6.9	Good											
						1	I.....	9,108	54	27		337	73	10	5.2	Good											
						2	A.....	15,540	66	33		741	70	19	5.0	Good											
						2	B.....		52	42		370	74	18	7.9	Passable											
						2	C.....		50	40		389	73	16	6.9	Good											
						2	D.....	12,236	48	31		394	72	21	6.4	Good											
						2	E.....	12,236	48	23		532	67	22	5.2	Good											

REPORT OF GARBAGE INSPECTOR.

Detroit, July 1st, 1904.

Guy L. Kiefer, M. D., Health Officer.

Dear Sir :—I have the honor to present the following report for the year ending June 30th, 1904.

The service rendered by the Detroit Sanitary Company has not improved any in the past year. The garbage within the half mile circle has been well taken care of for very few, as shown by complaints from this section. Outside of the half mile circle and within the two mile circle there are many sections where collection is only made twice a week. In the out-lying portions of the city and within the limits, collection is seldom if ever made except upon complaint. On the other side the company have a great deal to contend with in the people not providing proper receptacles and when ordered to do so the universal reply is they are stolen as fast as they are provided. In other places the garbage is kept locked up, in many places where there is no alley and in tenement sections the garbage is kept upstairs. I have instructed hundreds of people how to keep their garbage to meet such cases and ensure proper collection by the company but of no avail. The manure nuisance has not been half as bad for the same period this year as last. The farmers started to collect it earlier this season and the city has been well cleaned up to date.

I must also mention that the new rule adopted by you requiring investigation of all complaints as to cause of the complaint has greatly increased my work. The following table gives the details of my work.

	Complaints Investigated	No Cause for Complaint	Cause for Complaint	Special Investigations
1903				
July.....	48	27	21	128
August	92	67	25	
September	44	31	13	110
October.....	51	28	23	68
November.....	40	29	11	22
December.....	17	15	2	27
1904				
January'.....	17	15	2	27
February.....	29	19	10	15
March.....	34	24	10	18
April.....	134	98	36	29
May	176	112	64	45
June.....	279	215	64	26
Total	961	680	281	515
Miscellaneous inspections.....				143
Foul cellars inspected.....				22
Defective eave-troughs inspected.....				27

Respectfully submitted,

JOHN B. PETERS,
Inspector.

REPORT OF SMOKE INSPECTOR.

Detroit, July 1st, 1904.

Guy L. Kiefer, M. D., Health Officer.

Dear Sir:—I beg leave to submit my second annual report from July 1st, 1903, to June 30th, 1904.

Notwithstanding the difficulties which are continually present in connection with this branch of the sanitary work, I am pleased to report that a great improvement has been made, especially in the district lying east of 12th Street to McDougall Ave. and north to Grand River, on the west side of Woodward and as far north as Forest Ave. on the east side.

A number of chimneys have also been cleaned up in the outlying district at Milwaukee Ave. and west on the railroad tracks known as the manufacturing district. It is true there are still smoky chimneys everywhere, a few of which are very obstinate cases and difficult to deal with. I refer to such plants as the Detroit United Railway, Parke Davis & Co., on the east side, and the Detroit R.R. Steel Spring Works on the west side, all of them equipped with what the owners believe to be first-class furnaces; but they all smoke.

Many plants where devices have been put in also give us a lot of trouble, sometimes on account of the devices getting out of order, but oftener through carelessness or inability of the fireman to use them. One continual source of annoyance which we have to contend with and which we are likely to have is the changing of fireman where devices are installed. New men come on who

are not acquainted with the device, and the result is smoke. This I expect we will have to contend with until every plant has a smoke preventing device of some kind.

The general result, however, is encouraging, and when our amended ordinance is well understood I hope to get better results with less labor. As it is, if reports from other cities are correct, we have reason to congratulate ourselves on the progress made here.

On another page are two sets of charts showing improvement made by the installation of smoke preventing devices. Nos. 1 and 2 are from the chimney of the Goebel Brewery, No. 1 showing hand-firing, and No. 2 after a mechanical stoker was installed.

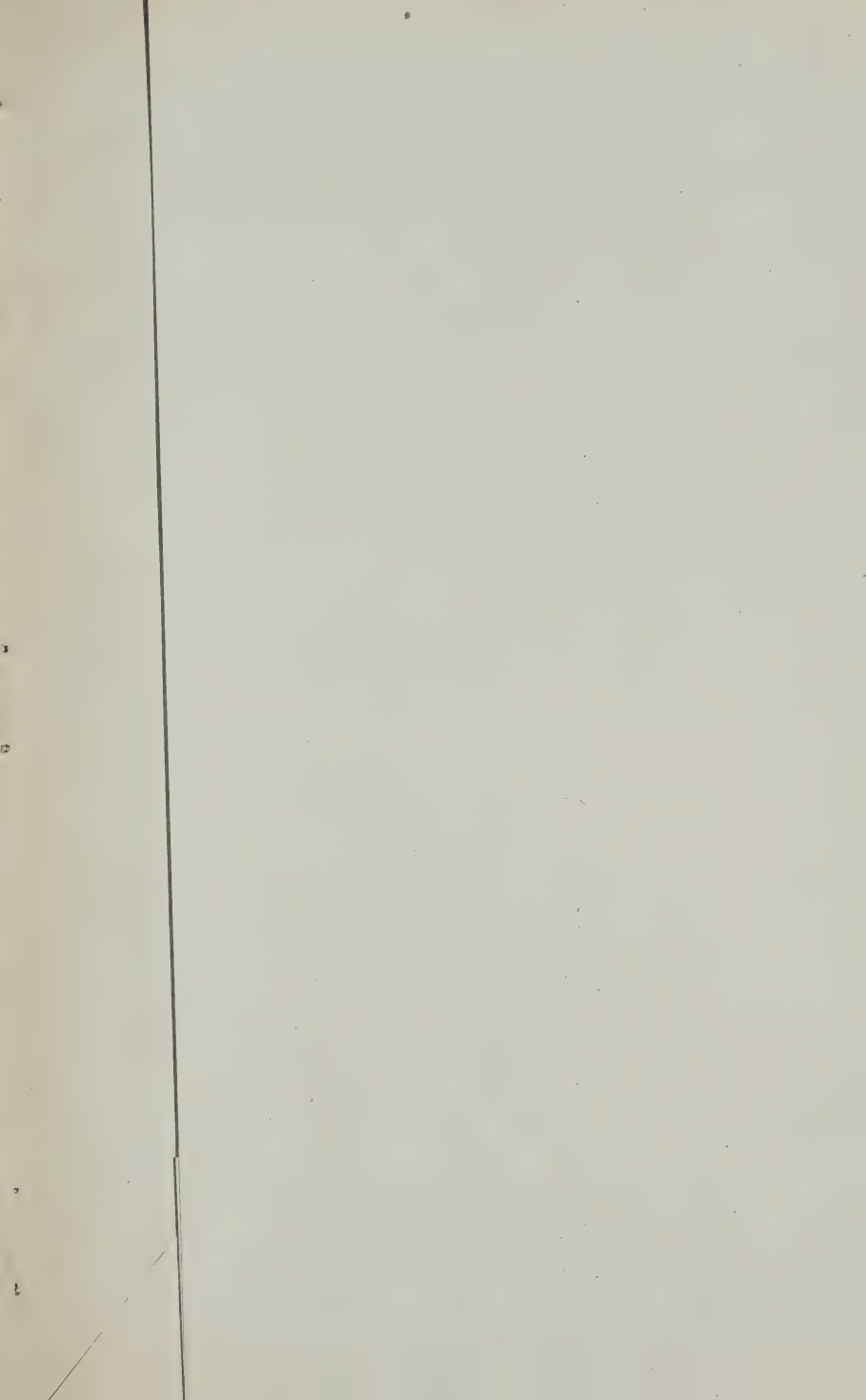
Nos. 3 and 4 are from the chimney of the Stearns Laboratory before and after a patent steam jet and air mixing automatic device was put in.

These charts ought to be convincing proof to those who say that smoke cannot be stopped. They not only stop the smoke but in the case of the Goebel Brewing Co., the manager admits a saving in fuel of at least \$5.00 per day.

In the Stearns case it is not claimed to be a fuel saver, only a smoke preventer, and the price (somewhere between \$100.00 and \$125.00) being within the reach of all, it seems to me there is no good excuse left for smoking chimneys.

In conclusion I wish to state that a very large amount of the smoke enveloping our city comes from the steamboats on the river. A number of the companies, however, have taken the smoke question to heart and are experimenting with the devices now, and while they are not all successful as yet on account of the different conditions and kinds of boilers, I hope to see a great improvement in the near future. The companies who are now experimenting are the Grand Trunk Railroad, Michigan Central Railroad, Canadian Pacific Railroad, Detroit & Buffalo Steamboat Co. and the Detroit, Belle Isle and Windsor Ferry Co.

A number of other owners have agreed to put on devices of some kind.



Below is a summary of the work done during the year:

Number of observations and interviews	No correct record kept
Number of notices and letters sent out.....	227
Number of complaints made in the Recorder's Court.....	28
Number of convictions	21
Number in which sentence was suspended	7
Number in which fines were imposed	4
Amount of fines imposed.....	\$80
Complaints withdrawn by order of the Court	3
Complaints withdrawn by abatement of nuisance	3
Complaints withdrawn, wrong name given.....	1
Number of mechanical stokers installed.....	22
Number of automatic smoke preventing devices installed	78
Other smoke preventing devices, steam jets, etc.	26
Number of smoke preventing removed, unsatisfactory	5
Estimated cost of mechanical stokers.....	\$15,400
Estimated cost of all other devices.. ..	11,700

Respectfully submitted,

JOHN FAIRGRIEVE,
Smoke Inspector.

REPORT OF CHEMIST AND BACTERIOLOGIST.

To the Honorable the Board of Health:

Gentlemen—I respectfully submit the following report for the chemist and bacteriologist for the year ending June 30, 1904. This report is compiled from the monthly reports submitted by Mr. Tibbals during the year and is substituted for his annual report. Mr. Tibbals severed his connection with the Board of Health July 1 and did not submit an annual report. The compilations follow:

CHEMICAL ANALYSIS.

Samples of water.....	12
Samples of milk	1378
Samples of cream.....	26
Samples of ice.....	14
Samples of meat.....	1
Samples of butter, honey, preserves (of each 1).....	3
Samples of milk preservatives.....	1
Experimental analyses	6
Quantitative estimation of formaldehyde.....	2
Determinations of carbon dioxide in air.....	79

BACTERIOLOGICAL AND MICROSCOPICAL EXAMINATIONS.

Samples examined for Klebs-Loeffler diphtheritic bacilli.....	684
Samples in which Klebs-Loeffler bacilli were found.....	297
Samples in which Klebs-Loeffler bacilli were not found.....	353
Samples indecisive (no growth or culture medium).....	34
Samples of sputum examined for tubercle bacilli.....	71
Samples in which tubercle bacilli were found.....	33
Samples in which tubercle bacilli were not found.....	38
Samples of pus examined for gonococci.....	1
Samples of milk.....	607
Samples of water.....	173
Miscellaneous bacteriological examinations.....	13

MISCELLANEOUS.

Times in court.....	16
Schools visited	15
Different kinds of culture media prepared, cubic centimeters.....	16,895

MILK.

Of 1,378 samples of milk analyzed during the year, 61 were below the legal chemical standard, which is as follows:

Total solids not less than.....	12½%
Butter, fat not less than.....	3%
Water not more than.....	87½%
Specific gravity between.....	1,029 and 1,033

FORMALDEHYDE.

Formaldehyde was found in eight samples, all of which were collected in July, August and September. A test case was made by bringing suit against one of the dealers whose milk contained formaldehyde. He was found guilty and fined \$50, and since then no further samples containing formaldehyde have been found.

BACTERIOLOGICAL EXAMINATIONS.

During the year 607 samples of milk have been examined bacteriologically and the number of bacteria per cubic centimeter estimated. A tabulated report of this work can not be given inasmuch as none such has been submitted to me by Mr. Tibbals.

CITY WATER SUPPLY.

One of the important branches of the laboratory work is the chemical and bacteriological examinations of our water supply, the results of which for the past year fail to show any evidence of dangerous pollution.

In addition to the analytical data, the typhoid fever death rate of a city is generally looked upon as a valuable index of the condition of the water supply of that city. It is true that there are many other

sources of typhoid infection besides the public water supply, such as milk, uncooked vegetables, fruit and sea food, secondary infection, etc., and many cases of this disease which terminate fatally and help to increase the typhoid fever death of a city are contracted outside of the city and brought into it. Yet notwithstanding these facts, the typhoid fever death rate is regularly high in cities using a polluted water, and usually low in cities which have a pure supply. In a very instructive article by George W. Fuller, published not long since in the *Municipal Journal and Engineer*, is a table giving the typhoid fever death rates for 1898, 1899, 1900 and 1901, and the average for these four years of all cities in the United States having over 30,000 population. As this table is most interesting, I take the liberty of including a copy in this report. The table is arranged according to the average rate for the four years, the first city having the highest and the last the lowest.

Typhoid fever death rates per 100,000 inhabitants in cities of the United States of over 30,000 population:

	Population in 1900.	Aver.	1898.	1899.	1900.	1901.
Pittsburg, Pa.	321,616	113	71	110	144	125
Charleston, S. C.	55,807	110	131	109	127	74
Youngstown, Ohio	44,850	109	...	123	87	118
Allegheny, Pa.	129,896	90	58	107	93	101
Troy, N. Y.	60,651	90	73	76	155	57
Johnstown, Pa.	35,936	88	30	81	139	100
Wheeling, W. Va.	38,878	86	87	70	90	95
Knoxville, Tenn.	32,637	79	179	41	43	52
York, Pa.	33,708	72	143	71	36	38
Washington, D. C.	278,718	68	64	62	77	67
Chattanooga, Tenn.	30,154	67	72	65	63	67
Albany, N. Y.	94,151	65	99	87	51	24
Duluth, Minn.	52,969	65	52	39	94	73
Mobile, Ala.	38,469	65	62	56	68	72
Norfolk, Va.	46,624	63	68	79	45	58
Little Rock, Ark.	38,307	61	70	57	47	68
Terre Haute, Ind.	36,673	60	42	58	71	68
Galveston, Tex.	37,789	59	42	87	71	36
Louisville, Ky.	204,731	59	60	61	58	56
McKeesport, Pa.	34,227	59	48	43	67	77
San Antonio, Tex.	53,321	59	...	44	90	42
Chester, Pa.	33,988	58	49	108	35	40
Superior, Wis.	31,091	58	29	34	125	44
Atlanta, Ga.	89,872	57	15	88	61	62
Birmingham, Ala.	38,415	57	25	40	70	93

	Population in 1900.	Typhoid Fever Aver.	1898.	1899.	1900.	Death Rate 1901.
Kansas City, Kan.....	51,418	57	33	...	60	79
Spokane, Wash.	36,848	55	57	48	65	48
Binghamton, N. Y.....	39,647	52	72	28	53	56
Evansville, Ind.	59,007	52	49	67	63	27
New Orleans, La.....	287,104	52	66	55	40	47
Lancaster, Pa.	41,459	50	66	69	41	24
Richmond, Va.	85,050	50	34	44	88	35
Philadelphia, Pa.	1,293,697	49	51	75	35	33
Reading, Pa.	78,961	49	68	34	49	43
Allentown, Pa.	35,416	48	57	64	25	47
Montgomery, Ala.	30,346	47	48	57	56	25
Wilmington, Del.	76,508	47	37	61	47	42
Nashville, Tenn.	80,865	46	28	62	48	45
New Haven, Conn.....	108,027	46	38	27	26	92
Minneapolis, Minn.	202,718	44	44	36	38	58
Dallas, Tex.	42,638	44	48	52	42	34
Topeka, Kan.	33,008	43	30	75	24	44
Hartford, Conn.	79,850	43	48	49	44	31
Quincy, Ill.	36,252	42	37	25	44	61
Portland, Me.	50,145	41	76	31	32	25
Cincinnati, O.	325,002	40	33	37	36	54
Denver, Col.	133,859	40	32	39	42	48
Harrisburg, Pa.	50,167	40	33	41	48	38
Los Angeles, Cal.....	102,479	40	46	41	42	29
Cleveland, O.	381,768	39	34	32	54	36
Covington, Ky.	42,038	39	29	40	49	39
Elmira, N. Y.....	35,672	39	49	31	48	27
South Bend, Ind.....	35,999	39	27	...	44	45
Springfield, Ill.	34,159	39	43	60	29	22
Houston, Tex.	44,633	38	39	30	29	52
Springfield, O.	38,253	38	24	64	44	20
Waterbury, Conn.	45,859	38	31	34	54	31
Butte, Mont.	30,470	37	68	39	13	28
Grand Rapids, Mich.....	87,565	36	34	31	42	35
Augusta, Ga.	39,441	35	21	46	35	37
Indianapolis, Ind.	169,164	35	30	39	44	27
Memphis, Tenn.	102,320	35	24	40	35	41
Kansas City, Mo.	163,752	34	26	31	36	43
Baltimore, Md.	508,957	33	38	30	37	27
Canton, O.	30,667	33	57	40	23	12
Paterson, N. J.....	105,171	33	35	48	23	27
San Francisco, Cal.....	342,782	33	17	52	41	20
Altoona, Pa.	38,973	32	35	34	31	28
Columbus, O.	125,560	32	28	23	42	36
Davenport, Ia.	35,254	32	9	44	43	30
Salt Lake City, Utah.....	53,531	32	44	21	26	35
Trenton, N. J.....	73,307	32	31	46	31	19
Fort Wayne, Ind.....	45,115	31	23	34	35	31
Toledo, O.	131,822	31	25	31	39	30
Wilkesbarre, Pa.	51,721	31	39	30	19	35
New Bedford, Mass.....	62,442	30	29	26	35	29
Seattle, Wash.	80,671	30	33	33	30	24
Boston, Mass.	560,892	29	34	30	25	25

TYPHOID FEVER DEATH RATE—Continued

	Population		Typhoid Fever Death Rate			
	in 1900	Aver.	1898	1899	190	1900
Camden, N. J.....	75,935	29	45	39	16	16
Dayton, O.	85,333	29	22	37	30	26
Akron, O.	42,728	28	18	32	36	27
Chicago, Ill.	1,698,575	23	38	26	20	...
Savannah, Ga.	54,244	28	38	36	29	10
Auburn, N. Y.	30,345	27	14	23	46	23
Buffalo, N. Y.	352,387	27	29	26	27	27
Omaha, Neb.	102,555	27	35	27	23	22
Portland, Or.	90,426	27	24	24	36	25
Syracuse, N. Y.	108,374	27	45	19	29	15
Saginaw, Mich.	42,345	26	14	26	35	29
St. Louis, Mo.	575,238	26	17	23	29	33
Schenectady, N. Y.	31,682	26	4	...	38	35
Springfield, Mass.	62,059	26	26	25	27	25
Tacoma, Wash.	37,714	26	40	13	21	28
Eric, Pa.	52,733	25	14	35	34	15
Scranton, Pa.	102,026	25	14	25	29	30
Chelsea, Mass.	34,072	23	21	30	20	20
Lawrence, Mass.	62,559	23	19	33	22	19
Dubuque, Ia.	36,297	22	23	17	28	19
Jersey City, N. J.	206,433	22	36	15	21	16
Newark, N. J.	246,070	22	18	28	20	22
Sioux City, Ia.	33,111	22	21	9	39	20
Brockton, Mass.	40,063	21	8	18	45	14
Des Moines, Ia.	62,139	21	38	15	10	19
Fitchburg, Mass.	31,531	21	20	10	32	22
Hoboken, N. J.	59,364	21	14	21	17	23
Lincoln, Neb.	40,169	21	17	22	15	28
Oakland, Cal.	66,960	21	14	37	19	13
Pawtucket, R. I.	39,231	21	22	26	20	15
St. Paul, Minn.	163,065	21	28	19	22	14
Haverhill, Mass.	37,175	20	23	14	16	27
Holyoke, Mass.	45,712	20	18	25	20	15
Lowell, Mass.	94,969	20	26	18	18	19
Newton, Mass.	33,587	20	24	10	27	17
Salem, Mass.	35,956	20	29	20	19	11
Somerville, Mass.	61,643	20	19	25	15	19
Utica, N. Y.	56,383	20	22	18	25	16
Lynn, Mass.	68,513	19	23	19	19	14
Malden, Mass.	33,664	19	26	12	21	26
Manchester, N. H.	56,987	19	26	22	10	19
Milwaukee, Wis.	285,315	19	17	17	21	21
New York, N. Y.	3,437,202	19	20	16	21	20
St. Joseph, Mo.	102,979	19	13	36	7	19
Worcester, Mass.	118,421	19	12	16	27	22
Detroit, Mich.	275,704	18	18	20	18	16
Bayonne, N. J.	32,722	17	43	4	15	6
Elizabeth, N. J.	52,130	17	14	18	8	27
Fall River, Mass.	104,863	17	21	11	14	20
Rochester, N. Y.	162,608	17	14	19	18	18
Cambridge, Mass.	91,886	16	16	22	16	11
Bridgeport, Conn.	70,996	15	10	12	21	17
Yonkers, N. Y.	47,931	12	13	11	10	12
Rockford, Ill.	31,031	6	3	10	3	6

It will be seen that Detroit occupies a very enviable position, there being but 8 cities out of the 132 in the table with a lower typhoid fever death rate. In other words, out of all the cities of the United States of over 30,000 population, only 8 had lower typhoid fever death rates for the four years recorded than Detroit, and there has been no appreciable increase in Detroit's rate for the past two years, which was 17.1 and 18.28, respectively, for the fiscal years ending in June, 1903, and 1904.

Concerning the interpretation of typhoid fever death rates as applied to public water supplies, Mr. Fuller says in part: "Just where a line should be drawn separating a pure water supply from a suspicious one, according to the typhoid fever death rate, is, of course, a difficult matter to decide upon, owing to the influences of many varying local factors. As a general proposition, however, sanitarians are inclined to regard as more or less suspicious the public water supply of a city where the death rate regularly or usually exceeds 30 per 100,000, and where such rates are not largely explained by epidemics due to factors other than the water supply."

At no time during the past nine years has Detroit's annual typhoid fever death rate reached the above figure. In fact, it has not exceeded 20 per 100,000.

The results of the chemical and bacteriological examinations of our water supply follow.

CHEMICAL ESTIMATIONS ARE IN PARTS PER MILLION.

	July, 1903	August, 1903	September, 1903	October, 1903	November, 1903	December, 1903	January, 1904	February, 1904	March, 1904	April, 1904	May, 1904	June, 1904
Appearance.....	N. C.	N. C.	N. C.	N. C.	C.	N. C.	C.	N. C.	T.	S. T.	N. C.	N. C.
Total solids.....	112.2	116.0	121.0	113.8	102.6	115.0	106.8	112.8	119.2	109.4	112.0	114.0
Volatile matters.....	31.2	40.6	43.6	40.2	36.8	39.8	38.2	38.2	41.6	35.4	38.2	38.4
Non-volatile matter.....	78.0	75.4	77.4	73.6	65.8	75.2	68.6	74.6	77.6	74.0	73.8	75.6
Free ammonia.....	.006	.009	.014	.006	.006	.008	.006	.008	.040	.014	.009	.004
Albuminoid ammonia.....	.072	.088	.084	.108	.088	.070	.086	.100	.108	.098	.092	.062
Nitrogen as nitrates.....	.117	.082	.12	.15	.18	.115	.18	.15	.247	.165	.182	.13
Nitrogen as nitrites.....	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Chlorine.....	2.85	3.20	3.15	2.95	2.75	3.20	3.53	3.40	2.90	2.70	2.95	2.75
Oxygen absorbed in 15 minutes.....	.24	.28	.36	.40	.32	.40	.28	.36	1.68	.32	.28	.48
Oxygen absorbed in 4 hours.....	.60	.52	.64	.72	.68	.76	.60	.68	2.08	.68	.64	.88
Bacteria per cubic centimeter.....	129	71	101	101	83	304	301	198	898	942	174	440
" " " ".....	147	94	153	132	102	401	234	254	1135	276	131	319
" " " ".....	91	103	165	205	182	274	397	157	1336	639	79	240
" " " ".....	73	62	202	168	203	487	207	287	949	512	82	.....
Growth in .2 per cent. carbo-gelatin.....	None	None	None	None	None	None	None	None	None	None	None	None
Colon.....	None	None	None	None	None	None	None	None	None	None	None	None

C.—Clear.

N. C.—Nearly Clear.

T.—Turbid.

S. T.—Slightly Turbid.

DIPHTHERIA AND TUBERCULOSIS.

A total of 684 bacteriological examinations in suspected cases of diphtheria were made this year as against 527 last year. Of these 684, 43.4 per cent contained the Klebs-Loeffler bacilli, 51.6 contained other bacteria and 5 per cent were received in such condition as to render the examination unsatisfactory and the results uncertain. Tubercle bacilli were found in 46.4 per cent of the samples of sputum examined.

EXAMINATION OF AIR IN SCHOOLS.

This work has been continued during the year and has been directed to private schools for the most part. The chemist and sanitary engineer worked together in these examinations and a full and detailed account of the work may be seen in the report of the Sanitary Engineer.

Respectfully submitted,

GUY L. KIEFER,
Health Officer.

REPORT OF MEAT INSPECTORS.

DETROIT, MICH., July 1, 1904.

Guy L. Kiefer, M. D., Health Officer :

DEAR SIR :—The following is the report of the Meat Inspectors for the fiscal year ending June 30th, 1904.

To further the work of your Inspectors, we would recommend that Section 11, Chapter 97, as amended in 1898, be further amended to read as follows :

That all meat condemned by the Meat Inspectors shall be destroyed at the time of its condemnation, at the place where condemned, and left until your Inspectors see it carted away. If removed before that time, the condemned articles shall be considered to have been sold by the owner and a penalty attached if convicted of so doing.

Our reasons for recommending these changes are that we find it almost impossible to prevent the sale of the articles condemned unless we destroy it at once, or stop and watch until the owner causes it to be removed from his premises. This we cannot find time to do at one place, as it leaves others free to do the same thing before we can reach them. It also causes friction with the wholesale men if we stop at one place of which we may have suspicion, thus neglecting others who may be equally guilty.

The cause of most of the complaints against slaughter houses have this year been from those places where they have rendered the offal. Some of the causes have been remedied according to the recommendations of your Inspectors. Others we are still pressing to make the improvements recommended. The slaughter houses where the offal has not been rendered have, as a rule, complied with the law and are in good condition.

The Detroit Sanitary Works have been very slack in removing offal from the slaughter houses at the proper time, thus causing a great deal of trouble to your Inspectors, especially in the west side of the city, where most of the slaughter houses are situated, thus causing complaints to be made when it is no fault of the owner.

We think all offal should be removed in the night time, and in no case later than 4 o'clock in the morning.

All complaints from purchasers at the retail stores have been attended to and have been adjusted amicably to both parties. Our reasons for not entering complaints against the sellers in these instances has been that, first, we did not think there was sufficient evidence to convict; and secondly, though in some cases convictions might have been obtained, the ordinance provides no penalty if convicted.

In some cases your Inspectors found that the complaints were not justified.

Through the efforts of your Inspectors the sale of inferior meat in the city of Detroit has been greatly reduced, and should the Common Council act favorably on our recommendation and amend the present ordinance, the sale of inferior articles under our jurisdiction would be still further reduced.

STOCK YARDS.

If your Inspectors had power to inspect the live cattle at the stock yards before being killed, and order all inferior or diseased animals killed and destroyed at once, it would be a still greater boon to our city, there being no authority for the destruction of these animals in the manner suggested. Some are killed and delivered direct from the stock yards to grocers who have meat stores in the rear of their premises, who, as a rule, do not understand the purchasing of meat.

Below is a report of work done by us during the year :

INSPECTIONS OF MEAT OFFERED FOR SALE.

27,676 carcasses beef, 70,579 dressed sheep, 33,595 dressed calves, 25,216 dressed hogs, 1,134,000 pounds dressed poultry, 768,500 pounds fish, 71 carloads of meat, consisting of pork and beef, etc.

Chicago Beef Houses: 19,556 carcasses beef, 23,380 dressed sheep, 7,306 dressed calves.

INSPECTIONS OF LIVE STOCK.

Various slaughter houses—8,980 cattle, 20,623 sheep, 6,268 calves.

Eastern Market—78½ milch cows, 1,03 calves

Cadillac Square Market—19,319 crates poultry.

INSPECTIONS MARKETS, SLAUGHTER HOUSES AND
COMMISSION HOUSES.

Made 2,593 calls at retail markets, 835 calls at slaughter houses, 743 calls at 3 fish houses and 4 Chicago beef houses, and 620 calls at Eastern and Western Markets and all commission houses located on Woodbridge street; 20 retail stalls daily at Central Market; also wholesale markets located on Cadillac Square visited on an average three times a week

CONDEMNED MEATS.

Spoiled and unwholesome meats, 12,944 pounds, consisting of pork, beef, mutton, sausage, etc., condemned mostly at retail markets.

249 dressed sheep, 5,539 lbs.	6 fresh hams, 58 lbs.
225 dressed calves, 11,734 lbs.	1 front quarter lamb, 10 lbs.
17 dressed hogs, 1,772 lbs.	Live poultry, 7½ lbs.
16 dressed carcasses beef, 6,166 lbs.	1 milch cow, afflicted with lump-jaw; was slaughtered and destroyed.
Dressed poultry, 2,074 lbs.	2 live sheep, were slaughtered for being injured and unhealthy.
Smothered poultry, 2,223 lbs.	1 live calf, brought to the city by a farmer, and being too young to sell, was ordered to be taken back.
Fish, 700 lbs.	1 roast pig.
12 smoked hams, 165 lbs.	4 beef livers
Smoked hams, 500 lbs.	10 calves' heads.
23 quarters veal, 443 lbs.	Pigs' heads, 40 lbs.
4 front quarters beef, 420 lbs.	20 calves' livers.
3 hind quarters beef, 310 lbs.	2 bbls. calves' heads and livers.
1 side beef, 110 lbs.	90 rabbits.
2 chucks beef, 220 lbs.	8 bbls. pears.
1 round beef, 60 lbs.	
1 bbl. corned beef, 180 lbs.	
Pressed corned beef, 300 lbs.	
6 boiled hams, 102 lbs.	

The report on weights of animals condemned and destroyed, as well as the weights of meats as above stated, are approximately correct, as it has been impossible to weigh the whole, and we have therefore estimated it.

Respectfully submitted :

J. L. WALTZ,
FRANK KOLB,
Meat Inspectors.

REPORT OF MILK INSPECTORS.

Detroit, Mich., July 1, 1904.

Guy L. Kiefer, M. D., Health Officer :

Dear Sir: The milk inspectors of the Detroit Board of Health present their report for the year ending June 30th, 1904, with a greater degree of satisfaction than either of the former reports. While a glance at the tabulated report shows only a slight increase in the number of samples of milk taken, we believe that the change in the manner of taking samples has been productive of that for which we were striving, delivery to the people of Detroit of a grade of milk as near as possible free from tampering and at the same time produced, transported, and delivered, with special attention given to cleanliness, temperature, and speed in transportation.

In the past, or until September 29, 1903, it was our policy to take as great a number of samples as possible indiscriminately without any preparation for complaints in Police Court, with the idea of finding out who was selling any other than pure milk. When any such was found he was notified of his defect, and warned to correct it. Samples were then taken with full measures for a prosecution. This system seemed to produce the desired results, for the sealed samples were all of the required standard. It was noticed, however, that the improvement was not always permanent, there being a tendency to backslide on the part of certain dealers after a few acceptable samples had been taken, and no further preparation was made for prosecution. At best the only penalty for tampering with milk or neglecting the securing of a pure supply was a warning to be more careful.

On September 29th, 1903, in accordance with your directions, a new system was put in operation, and has been followed up to the present time. All cases have been prepared from the first for court proceedings. The inspectors have accompanied each other in taking samples for the purpose of obtaining corroborative evidence, which has been absolutely necessary. Samples have all been sealed, and a sealed duplicate has been given to the dealer. Details concerning each sample have been secured, such as appearances of wagons, whether owner's name was printed on same, location of wagon at time of taking sample, number of cans and other contents of wagon, amount of milk in cans, license number, driver's name and residence, if the agent of the

dealer, etc. Concerning all these matters we have been questioned while on the witness stand, and in order to be prepared in all cases, these details are noted in each case. In only one case have we failed to secure conviction, and we consider that was lost on a technicality. The proof of the wisdom of our present system we believe to be found in the fact that in no instance has it been necessary to bring a second proceeding against any dealer.

We wish to call your attention to our one court case for preservatives and to the fact that, since it was begun, we have found not a single instance of preservative adulteration. On account of the fact that in time past efforts to convict for the use of formaldehyde have been futile, though large amounts of money have been spent for the purpose, this case was prepared with especial care, both inspectors working for three months on one man before sufficient evidence was secured for a strong test case. The result was the first conviction as far as we can ascertain for the use of formaldehyde in the State of Michigan. It is to be remarked that while in our first cases the defendants were represented by an attorney, lately they have not been, showing a disposition simply to get out of the trouble with as little expense and advertisement as possible. The fines imposed have been from \$10.00 to \$50.00, and costs.

Ninety-four complaints of impure milk and cream have been received, and carefully investigated. In very few cases, however, was there any justification for them, they usually being the result of some disagreement between the dealer and the consumer. Requests for special reports of certain milk supplies have been numerous, including several from hospitals, the results seeming to be of considerable satisfaction to those asking for the same.

In several instances the cause of trouble has been found to be improper handling on the part of the users and has ceased after the defect was rendered.

In the matter of stables, etc., we repeat that we do not believe they can be conducted inside the city limits in such a way as to assure pure milk supply from healthy cattle. Neither can the stables be kept in so sanitary a condition as not to be dangerous to public health, and a nuisance in the neighborhood in which they are located. They are, however, invariably small concerns, producing a very small percentage of the milk supply of Detroit, supplying people who are unwilling to pay more than 3 cents per quart, and who live in their own immediate neighborhood, so they cannot fail to be perfectly aware of the source of their supply, and the conditions under which it is produced.

Repeated inspections are being made of all such premises, and instructions of the proper management of the same are given. Under this treatment we find that nearly 50 per cent of these small dealers who took out licenses last year have sold their stock and gone out of the milk business. But one prosecution has been made for unsanitary stables, and this resulted in a conviction. In these cases it is extremely difficult to secure witnesses, the neighbors being willing usually to go into court and testify for the defendant that his premises are not a nuisance and are of no inconvenience to them. Complaints of unsanitary premises are usually either the result of neighborhood disagreements or have presented a marked improvement following a special inspection and notice to put them in better condition. We look for a **more** marked improvement in this matter after the passage of the new milk ordinance now before the common council.

In regard to bacteriological examination. This matter seems to be new to most of the dealers in and about Detroit. The subject has been carefully explained to such persons dealing with Detroit's milk supply as have been accessible, together with the advantages to themselves of keeping down the number of bacteria in milk, and literature and rules prepared by the United States Department of Agriculture have been distributed to as many interested persons as possible. It is a noteworthy fact that the samples containing the fewest bacteria come as a rule from the small city dairies whose method of handling we cannot usually commend. This is accounted for by the fact that the supply is of recent production, and the contained bacteria have not had the time to multiply as have those contained in samples brought from more distant parts. There seems to be a general decrease in the number of bacteria per cubic centimeter since a year ago, though to be positive it will be necessary to compare the reports of the hot months of July and August.

One of the most interesting branches of the work of milk inspection has been the connection of milk with transmission of contagious disease. In several instances, being directed by the Health Officer to the fact that an unusual number of cases of scarlet fever and diphtheria were being reported along the route of a particular dealer, his supply of milk was investigated at every stage, from the farm to the consumer. In several cases a cause for the difficulty was found and corrected. In one instance cases of scarlet fever continued to appear on one dealer's route until the peddler's working clothes were disinfected, after which no more cases were reported.

During May and June, in accordance with your directions, we

took samples of ice from all dealers doing business in Detroit, and inspected all icehouses in the city and examined the same and their wagons, together with their methods of cutting and storing and also ascertaining where ice was cut. We found that all ice was cut from good water, with the exception perhaps of one sample, which, however, on analysis by our chemist proved to be satisfactory ice. The old method, which may have been a source of contamination, of filling in between the cakes of ice with sawdust has been discontinued, and only the top is covered with marsh hay, which, if gathered under proper conditions, should be a very good and clean covering.

We also gathered specimens of street dust under different conditions and from different places, viz.: from the street near curb, from sidewalk, from alley and from street back of street car as dust was thrown up by passing car. The colon bacillus was found in all samples, with but one exception. The tubercle bacillus was found in one, and the Kiebs-Loefer bacillus in none.

The following is a tabulated report of work done during the year:

Number of samples taken.....	1,429
Unsealed	523
Pure	
Cream	
Skim	
Scaled	906
Pure	
Cream	
Skim	
Adulterated	
Water, Skim.....	61.
Preservatives	8.
Complaints received, and investigated.....	94
Inspections, stables	420
Cattle	1,260
Prosecutions—	
For adulterated milk by water and skimming.....	14
By formaldehyde	1
For keeping an unsanitary stable.....	1
Hindering inspectors	1
Convictions	14
Cases in Court, pending decisions.....	2
Samples of ice taken.....	11
Ice houses inspected.....	10
Investigations of contagious disease in connection with milk supply..	2
Samples of street dust.....	9
Complaints food investigated.....	16

Respectfully submitted :

WM. H. PRICE,
CLIFFORD L. STEWART,
Milk Inspectors.



UNIVERSITY OF ILLINOIS-URBANA



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